



June 4, 2021

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

Via Electronic Filing

Re: Corrected Comments and Public Meeting Request Concerning Draft Air Quality Permit No. 162941, Authorizing an Expansion of the Seahawk Terminal, Located in Calhoun County, Texas

Dear Ms. Gharis:

If finalized, Draft Air Quality Permit No. 162941 (“Draft Permit”) will authorize Max Midstream Texas LLC (“Max Midstream”) to construct a significant expansion of its existing Seahawk Terminal (“Terminal”), located in Point Comfort, Texas. On November 12, 2020, S. Diane Wilson, San Antonio Bay Estuarine Waterkeeper (“Waterkeeper”), Texas Rio Grande Legal Aid, and Environmental Integrity Project (“Commenters”) filed comments and requested a contested case hearing on Max Midstream’s application for authorization to construct the Terminal expansion project. Comments and Contested Case Hearing Request Concerning Max Midstream Texas LLC’s Application for Permit No. 162941 (November 12, 2020) (“Initial Comments”). Today, Commenters appreciate the opportunity to file supplementary comments on the Draft Permit and to **request a public meeting** on Max Midstream’s application and Draft Permit. These supplementary comments add to, rather than replace, issues of fact and law identified in the Initial Comments.

I. Introduction

As the many requests for a contested case hearing and a public meeting concerning this project indicate, Max Midstream’s proposed Terminal expansion project is a matter of great concern to those who live, work, and recreate near the Terminal. This concern is warranted, not only in light of the significant deficiencies in Max Midstream’s air permit application, but also because the project threatens to substantially transform the profile of the Point Comfort area in a way that will diminish the ecological integrity of the area, interfere with residents’ use and enjoyment of their private property, and increase residents’ exposure to various dangerous contaminants that will be emitted into the air and discharged into Matagorda Bay. For example, the Matagorda Ship Channel will be deepened and widened to accommodate ship traffic to the Seahawk Terminal. This endeavor and subsequent activities at the Terminal threaten to smother up to 700 acres of oyster reefs, increase the salinity of the bay, and unearth methyl mercury pollution from the adjacent Alcoa Superfund site, potentially devastating local fisheries and

harming the already overburdened communities in Calhoun County, Texas. All of this is in addition to the harmful air quality impacts from construction and operation of the expanded Seahawk Terminal.

Additionally, many people are concerned that Max Midstream has been less than forthcoming and transparent about its intentions and about the likely impacts of the Terminal expansion project. For example, Max Midstream's decision to improperly mark all the detailed emission calculations submitted with its initial application "confidential," significantly limited the public's ability to identify critical deficiencies in the application and may have discouraged many from requesting a contested case hearing during the initial comment period on Max Midstream's application.¹ Had Commenters not made their hearing request as best they could, given the limited available public information, and challenged Max Midstream's claim of confidentiality in comments filed with the Texas Attorney General, the public would have lost its opportunity to demand a contested case hearing and crucial information necessary for a full review of the application as well as for enforcement of the Draft Permit's terms—if issued—would still be inaccessible to the public.

Given these serious and well-founded concerns, the TCEQ must take its review of Max Midstream's air permit application seriously and ensure that any authorization issued to Max Midstream includes all applicable federal and state-law requirements, as well as monitoring, testing, and recordkeeping conditions sufficient to make those requirements enforceable. As Commenters explained in their Initial Comments and explain further below, the Draft Permit falls far short of this mark.

II. Request for a Public Meeting

The proposed expansion project at the Seahawk Terminal is a matter of significant public concern. It will require a massive reshaping of Lavaca Bay that threatens to release mercury contamination from the nearby Alcoa Superfund site. *See, e.g.,* Matagorda Bay Foundation, Supplemental Environmental Impact Statement Letter, dated April 15, 2021.² It will lead to increased ship traffic in the Bay and increased road traffic through Point Comfort and potential congestion near the Terminal. Air emissions from the expanded Terminal, along with pollution

¹ Max Midstream's designation of these materials as "confidential" directly conflicts with applicable federal requirements that make enforceable application representations and emission calculations public as a matter of law. 40 C.F.R. § 2.31(f) (providing that "[e]missions data [and] standards or limitations ... shall be available to the public notwithstanding any other provision of this part."). When Commenters requested information Max Midstream improperly designated "confidential," and explained that emission calculations and enforceable application representations may not be withheld, Max Midstream did not revise its claim of confidentiality to allow prompt review of its materials. Instead, the company allowed Commenters' request to be forwarded to the Texas Attorney General without comment. Presumably, Max Midstream opted not comment on this referral because the company understood that its claim of confidentiality was unsupported. Consequently, Commenters were able to obtain the requested information, but only after the public comment period on the application had closed.

² Available electronically at: <https://www.sabaypartnership.org/manager/wp-content/uploads/2021-04-28-Matagorda-Bay-Corps-Supplemental-EIS-Letter.pdf>

from the ships and trucks using the Terminal, as well as emissions from recently constructed or expanded sources threaten to significantly diminish air quality in the area. While Max Midstream claims that its expansion project is “minor,” it has failed to show that it will be able to comply with synthetic limits claimed to avoid more stringent pollution control and impacts evaluation requirements that apply to “major” projects and the Draft Permit fails to establish monitoring requirements that are capable of reliably detecting non-compliance with the synthetic minor limits. Members of the public should have an opportunity to voice their concerns about this project and to put questions to Max Midstream and TCEQ representatives directly. For these reasons, Commenters request that the Executive Director or the Office of the Chief Clerk hold a public meeting on Max Midstream’s application and Draft Permit, as allowed by 30 Tex. Admin. Code § 55.154(c).

III. Evidence Regarding Affected Persons

A. Newly-Identified affected persons (Waterkeeper)

Siblings John Maresh and Janet Maresh are members of Waterkeeper who reside in Point Comfort, approximately 1.79 miles north of the Seahawk Terminal. Their home is located at 67 Milam Street, Point Comfort, Texas 77978. Both were born in Calhoun County and grew up in Point Comfort. Each has an ownership interest in their family home in Point Comfort, which is their primary residence. Both are concerned that the proposed Seahawk Terminal expansion project will contribute to existing air pollution problems and that cumulative impacts from the Terminal and other new and expanding sources of air pollution, like Formosa’s plastics plant and frequent traffic congestion, will push the area into non-attainment for National Ambient Air Quality Standards (“NAAQS”).

When conditions are right, thick acrid smog settles over Point Comfort. The Maresh family is concerned that this problem will only become worse if TCEQ authorizes the Seahawk Terminal expansion project. They are also concerned that this massive industrial undertaking will reshape and degrade the local landscape, destroy native wildlife habitat, and threaten sensitive ecosystems. For these reasons, and because increased air pollution and industrial activity related to the Seahawk Terminal will diminish the Maresh’s use and enjoyment of their property, interfere with their recreational activities in the area, and may cause them deleterious health impacts, the Mareshes oppose issuance of the Draft Permit. Mr. Maresh and Ms. Maresh are affected persons, as defined by Texas law.

B. Additional evidence demonstrating that S. Diane Wilson is an affected person

Commenters identified S. Diane Wilson as an affected person in their Initial Comments and now provide additional evidence that she is an affected person entitled to participate in a contested case hearing challenging the sufficiency of Max Midstream’s application and the Draft Permit.

As part of her work with Waterkeeper, Ms. Wilson routinely visits the water bodies near the Seahawk Terminal in Cameron County to observe whether plastic pellets, powder, or flakes are or have been discharged from the Formosa Plastics facility in Point Comfort (“Formosa”). Ms. Wilson visits the area at least once a week and as frequently as three times a week. During each of these trips, Ms. Wilson is outdoors in a kayak, a motorboat, or on foot between four and six hours. Ms. Wilson began visiting many of these sites as early as 2016 and will continue to visit them to monitor Formosa’s compliance with the Consent Decree entered in *San Antonio Bay Estuarine Waterkeeper, et. al., v. Formosa Plastics, Texas et. al.*, No. 6:17-cv-00047 (S. D. Texas, Dec. 9, 2019). This consent decree provides remedies to injuries suffered by Ms. Wilson and Waterkeeper from Formosa’s illegal discharge of plastics as found by Judge Kenneth Hoyt of the Southern District of Texas. These remedies establish a legally protected interest for Waterkeeper and Ms. Wilson that is not shared by the general public. Ms. Wilson’s reasonable concerns that her exposure to air pollution resulting from Max Midstream’s proposed expansion of the Seahawk Terminal interfere with these interests further establish that she is an affected person with a right to participate in a contested case hearing concerning Max Midstream’s air permit application and Draft Permit. Moreover, the District Court ruled in favor of Ms. Wilson and Waterkeeper on the question of Formosa’s liability in this lawsuit affirming that Ms. Wilson’s frequent use of the waters close or adjacent to the Formosa facility were sufficiently particularized to establish her standing to sue Formosa for violations of its wastewater discharge permit. Memorandum and Order, *San Antonio Bay Estuarine Waterkeeper, et al, v. Formosa Plastics Corp.*, Civil Action No. 6:17-CV-0047 (U.S. District Court, Southern District of Texas, Victoria Division June 27, 2019). The Court’s holding regarding standing remains in effect and supports Commenters’ demonstration that Ms. Wilson is an affected person in this case, because Max Midstream’s proposed expansion project will interfere with her use and enjoyment of these same areas.

Ms. Wilson regularly visits locations in Lavaca and Cox Bay to evaluate the presence and source of plastics in those water bodies. Three times in the last four months, Ms. Wilson visited the site of Formosa’s outfall number 013 located about 3,100 feet of the Seahawk terminal. Attachment A, Image A. Twice in the last year, Ms. Wilson visited Formosa’s outfall number 011 located near the Calhoun Port Authority and roughly 1,300 feet from the Seahawk terminal. *Id.* at Image B. Several times in the last year, Ms. Wilson visited the Northern portion of the harbor near the Alcoa facility, approximately 1.85 miles from the Seahawk terminal. *Id.* at Image C. Ms. Wilson also visits Formosa’s outfall 001 in Lavaca Bay once every two months, and the old causeway near Point Comfort once a week. Each are approximately two miles from the Seahawk Terminal. *Id.* at Images D & E.

Ms. Wilson visits Formosa’s outfalls 006, 002, 004, 005 and the Tres Bahias property on the East side of Cox Creek once a week. These are three miles or less from the Seahawk Terminal. *Id.* at Images F, G, & H. Multiple times a year, Ms. Wilson also visits other portions of Cox Creek including Formosa’s outfall 003 and the Alcoa Dam, Formosa’s fence line along highway 35, and a boom intended to catch plastics discharged from outfalls 002, 004, and 005. Each of these are 2.5 miles or less from the Seahawk terminal. *Id.* at Images I, J, & K. Ms. Wilson also visits locations on the southwest peninsula of Lavaca Bay once a week. These locations are all five miles or less of the Seahawk terminal. *Id.* at Images L, M, & N.

IV. Additional Disputed Issues of Fact and Law

Commenters preserve the following issues of material fact and law for consideration at a contested case hearing concerning Max Midstream's application and Draft Permit. Additional details about some, but not all, of these contested issues is provided below in Section V of these supplemental comments.

- The Terminal is a major source of CO, NO_x, and VOC (ozone), because the Terminal has the physical capacity to emit these pollutants at rates that exceed the Prevention of Significant Deterioration ("PSD") significance threshold of 100 tons per year ("TPY") and the synthetic minor limits Max Midstream has taken to avoid PSD preconstruction permitting requirements are not practicably enforceable. 30 Tex. Admin. Code § 116.111(a)(2)(B), (G), (I);
- Max Midstream has not attempted to demonstrate compliance with applicable PSD preconstruction requirements triggered by the expansion project. *Id.* at §§ 116.111(a)(2)(I), 116.160(b), (c);
- Max Midstream's application relies on inappropriate emission factors, including AP-42 emission factors and vendor guarantees that may or may not exist, which underrepresent potential and future actual emissions of VOC, NO_x, CO, PM/PM₁₀/PM_{2.5}, SO₂, and HAPs from the Terminal. *Id.* at §§ 116.111(a)(2)(A), (G), (I), 116.160(b), (c);
- Max Midstream failed to provide a reasonable basis for its representations regarding potential Hazardous Air Pollutant ("HAP") emissions from the Terminal used to avoid major source HAP requirements and to model air quality impacts. *Id.* at § 116.111(a)(2)(G), (K);
- Max Midstream's representation that its emergency flare will not emit *any* particulate matter is unsupported and unreasonable and the Draft Permit fails to establish monitoring and testing provisions that make the prohibition on all PM emissions from the emergency flare practically enforceable. *Id.* at §§ 116.111(a)(2)(A), (B), (G), (J);
- Max Midstream underrepresented expected emissions from truck and marine loading and overestimated the collection efficiencies of its equipment related to these activities, and the Draft Permit fails to establish monitoring and testing conditions sufficient to make these representations practicably enforceable. *Id.* at § 116.111(a)(2)(A), (B), (G), (I), (J), (K);
- Max Midstream failed to provide the basis for the crude characteristics it used to calculate proposed emission limits and to perform its air impacts demonstrations, and the Draft

Permit fails to require monitoring sufficient to make representations regarding crude characteristics practically enforceable. *Id.* at § 116.111(a)(2)(A), (B), (G), (I), (J), (K);

- Max Midstream’s application fails to demonstrate that the Draft Permit’s emission limits and pollution control requirements are consistent with applicable Texas Best Available Control (“BACT”) requirements, because it fails to include *any* information about pollution control requirements in recently issued permits for similar sources. *Id.* at §§ 116.111(a)(2)(B), (C), (G), (I), 116.160(c), (a);
- Max Midstream’s proposed leak detection and repair (“LDAR”) program is not consistent with applicable Texas BACT requirements, because Max Midstream failed to consider more robust LDAR regimes required by recently-issued Texas air permits and because Max Midstream failed to consider whether additional monitoring using optical gas imaging (“OGI”) would provide more effective control without unreasonably increasing costs. *Id.* at §§ 116.111(a)(2)(B), (C), (G), (I), 116.160(c), (a);
- Max Midstream failed to demonstrate that a NO_x emission rate of 0.1 lb/MMBtu is consistent with applicable Texas BACT requirements for units CONT-1 and CONT-2. *Id.* at §§ 116.111(a)(2)(B), (C), (G), (I), 116.160(c), (a);
- Max Midstream has not attempted to demonstrate that emissions from the Terminal will not cause or contribute to violation of National Ambient Air Quality Standards (“NAAQS”) for ozone. *Id.* at §§ 116.111(a)(2)(A), (I), (J), 116.160(c)(2);
- Max Midstream’s air quality impacts demonstration is deficient, because it (1) relies upon unrealistic and practicably unenforceable assumptions about emission rates for new and existing equipment; (2) fails to model impacts from the Terminal using the 10 ppmv at 3% O₂ VOC emission rate included in the Draft Permit; (3) uses unrepresentative meteorological data; (3) improperly and arbitrarily excludes or averages emissions from certain emission points; (4) uses unrepresentative information about source parameters and location; (5) fails to properly identify point sources and area sources for purposes of modeling, and (6) fails to account for cumulative impacts from other new and recently permitted sources. *Id.* at §§ 116.111(a)(2)(A), (I), (J), 116.160(c)(2).

V. Detailed Comments on Select Disputed Issues of Fact and Law

A. Max Midstream’s representations about the Terminal’s potential to emit are unsupported and unreasonable.

According to Max Midstream’s updated application, the expanded Seahawk Terminal will emit pollutants at the following rates:

Table 1: Represented Potential to Emit

Pollutant	Tons Per Year	Major Modification Threshold (TPY)
CO	97.35	100
NO _x	97.03	100
PM/PM ₁₀ /PM _{2.5}	11.12	100
SO ₂	21.93	100
Ozone (as VOC)	84.15	100
Ozone (as NO _x)	97.03	100

Max Midstream, PI-1 General Application Table dated November 2020.

As Commenters demonstrated in their Initial Comments, the expanded Terminal will have the physical capacity to emit pollution far above the significance threshold of 100 tons per year that triggers PSD preconstruction permitting requirements. Initial Comments at 2-3. Thus, the expansion project triggers PSD preconstruction permitting requirements, *see* 30 Tex. Admin. Code § 116.160(c) (describing additional requirements that apply to PSD major modifications), unless the permit authorizing the project establishes practicably enforceable “synthetic” limitations for criteria pollutants, like NO_x, PM, and VOC (an ozone precursor), ensuring that emissions of these pollutants will remain below the 100 ton per year PSD significance threshold. *See In the Matter of Yuhuang Chemical Inc. Methanol Plant*, Order on Petition No. VI-2015-03 (August 31, 2016) at 14 (“Importantly, only limits that meet certain enforceability criteria may be used to restrict a facility’s PTE, and the permit must include sufficient terms and conditions such that the source cannot lawfully exceed the limit.”) (citing *In the Matter of Cash Creek Generation*, Order on Petition No. IV-2010-4 (June 22, 2012) (explaining that an “emission limit can be relied upon to restrict a source’s PTE only if it is legally and practicably enforceable.”)); *see also* EPA, *New Source Review Workshop Manual*, at A.5 (Draft October 1990) (“For any limit or condition to be a legitimate restriction on potential to emit, that limit or condition must be federally-enforceable, which in turn requires practical enforceability.”).

In this case, Max Midstream has identified constraints on throughput, loading rates, operating time, and material composition that are intended to establish enforceable constraints on the Terminal’s potential to emit. However, these constraints alone are not sufficient to show that actual emissions from the Terminal will remain below the applicable PSD significance threshold. Max Midstream also relies on “emission factors,” which are predictions about how much pollution units and activities at the Terminal will emit per the unit of activity that the Draft Permit will limit, to calculate its potential to emit given the artificial constraints on utilization of equipment at the Terminal. For example, where Max Midstream has proposed a cap on the combustion capacity or utilization of combustion sources in terms of MMBtu/hour or year, it relies on emission factors that predict how much pollution per MMBtu equipment at the Terminal will emit to calculate the Terminal’s PTE. These emission factors are taken from various sources, including TCEQ guidance, EPA’s AP-42 emission factors document, vendor guarantees that may or may not exist, and other undisclosed sources. If the Draft Permit is approved, these emission factors become conditions of the air permit. *See* 30 Tex. Admin. Code § 116.116(a) (making application representations regarding construction and operation of a source enforceable conditions of an air permit).

Unfortunately, Max Midstream failed to show that these emission factors reliably predict maximum potential emissions from the Terminal, given the proposed utilization constraints, and the Draft Permit fails to establish monitoring requirements that make the emission factors practicably enforceable. Accordingly, the synthetic minor limits Max Midstream has proposed are not practicably enforceable and do not effectively limit the Terminal’s potential to emit. Because these emission factors are unreliable and unenforceable, and because the gap between the synthetic minor limits proposed by Max Midstream and the applicable significance threshold is much smaller than the probable margin of error for the calculation methods Max Midstream has used, Max Midstream has failed to establish that this project is minor.

These practically unenforceable, unjustified, and unreliable emission factors also undermine the Company’s air quality impacts demonstration. Accordingly, Max Midstream has failed to demonstrate that a *minor* source permit is the appropriate vehicle for authorizing construction of the expansion project, *Id.* at § 116.111(a)(2)(B), (G), (I), that the project complies with applicable PSD preconstruction permitting requirements, *id.*, and that air quality impacts from the expanded Terminal will not endanger public health, welfare, and the environment. *Id.* at § 116.11(a)(2)(A), (J).

Table 2: Bases for Max Midstream Application Emission Calculations

Unit Type	Activity/Pollutant	Basis	Application Page
Storage Tanks	Routine working and breathing emissions	AP-42, Section 7.1 (March 2020)	5-1
	Short-term emission rates	AP-42, Section 7 equations with max. Temp. And vapor pressure per TCEQ	

		Guidance Document APDG 6419v2 (February 2020)	
Marine Vessel Loading	Uncontrolled loading losses	AP-42, Section 5.2, Equation 1	5-2
	VCU VOC emissions 99.9% DRE	Vendor guarantee	
	Uncollected fugitive based on efficiency of 99.89% for inerted ship and ocean-going barge loading, 100% for vacuum loading activities	TCEQ Air Permit Technical Guidance for Chemical Sources: Flares and Oxidizers, October 2002	
	VCU NO _x and CO emissions	Vendor guaranteed emission factors and a vapor heat content of 20,000 Btu/lb	
	VCU PM/PM ₁₀ /PM _{2.5} , SO ₂ from assist gas	AP-42, Section 1.4	
Emergency Flare	VOC DRE 99% for straight-chained organic compounds 3 carbons or less, 98% other compounds	TCEQ Guidance	5-3
	NO _x and CO	Calculated based on heat input of the material being combusted and TCEQ emission factors	
	VOC and SO ₂ from pilot gas	AP-42, Section 1.4 emission factors for natural gas combustion.	
Equipment Fugitives		Estimated using methods outlined in TCEQ's guidance web page for Equipment Leak Fugitives. Number of components times emission factor.	5-3
Storage Tank Floating Roof		Subsection 7.1.3.3 Floating Roof	5-4

Landing Losses (MSS)		Landing Losses, Section 7.1 AP-42 (March 2020)	
Storage Tank Refilling Losses (MSS)		Subsection 7.1.3.3.1, Section 7.1 AP-42	5-5
Storage Tank cleaning, refilling, and degassing (MSS)	VOC concentrations higher than 10,000 ppmv routed to control	TCEQ's Air Permit Guidance for Chemical Sources: Flares and Oxidizers (October 2002)	5-5
Equipment Venting (MSS)	VOC, NO _x , SO ₂ , PM/PM ₁₀ /PM _{2.5} and CO	Estimated from vapor combustion	5-6
Vacuum Truck and Frac Tank Loading (MSS)		AP-42, Section 5.2	5-6
Pipeline Pigging Emissions (MSS)		Carbon canister emissions are estimated based on vapor flow rates and a carbon breakthrough concentration of 100ppmv	5-7

1. Max Midstream failed to justify its reliance on AP-42 emission factors and equations.

Max Midstream's application and the TCEQ's review of that application rely heavily upon AP-42 emission factors to calculate the Terminal's potential to emit, which, in turn, provides the basis for Max Midstream's impacts and BACT demonstrations. AP-42 is a compilation of air pollutant emission factors developed by EPA, which has been published since 1972.³ These emission factors were developed to provide approximations of average emissions from certain *kinds* of activities and equipment. They were not intended to be used as the primary point of reference for source-specific permitting and enforcement. According to EPA, an AP-42 emission factor is:

a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. These

³ Available electronically at: <https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors>

factors are usually expressed as the weight of pollutant divided by a unit weight, volume, distance, or duration of the activity emitting the pollutant (e.g., kilograms of particulate emitted per megagram of coal burned). Such factors facilitate estimation of emissions from various sources of air pollution. *In most cases, these factors are simply averages of all available data of acceptable quality*, and are generally assumed to be representative of *long-term averages* for all facilities in the source category (i.e., a population average).

AP-42 (1995), Introduction at 1 (underlining in original, italics added).⁴

EPA has long warned that AP-42 that AP-42 emission “factors are not likely to be accurate predictors of emissions from any one specific source, except in very limited scenarios.” EPA Reminder About Inappropriate Use of AP-42 Emission Factors, Publication No. EPA 325-N-20-001 (November, 2020) (“Enforcement Alert”).⁵ Specifically, EPA has explained that “[u]se of these factors as source-specific permit limits ... is not recommended by EPA.” AP-42 (1995), Introduction at 1. This is so:

Because emission factors essentially represent an average of a range of emission rates, approximately half of the subject sources will have emission rates greater than the emission factor and the other half will have emission rates less than the factor. As such, a permit limit using an AP-42 emission factor would result in half of the sources being in noncompliance.

Id. (emphasis added).

In an enforcement alert released just last year, EPA emphasized an additional reason that AP-42 emission factors should not be used to establish or determine compliance with source-specific emission limits:

With the advent of 1-hour and short-term National Ambient Air Quality Standards (NAAQS), permit limits must be able to account for short term fluctuations. AP-42 emission factors also do not account for short term variation in emissions as the emission factors are intended for use in developing area-wide annual or triannual inventories. In developing emission factors, test data are typically taken from normal operating conditions and generally avoid conditions that can cause short-term fluctuations in emissions. These short-term fluctuations in emissions can stem from variations in process conditions, control device conditions, raw materials, ambient conditions, or other similar factors. This means that if facilities use AP-42 emission factors as permit limits, facilities increase their chances of violating their short-term permit limits. It also increases the likelihood of a geographic area’s non-compliance with the NAAQS.

⁴ Available electronically at: <https://www.epa.gov/sites/production/files/2020-09/documents/c00s00.pdf>

⁵ Available electronically at: <https://www.epa.gov/sites/production/files/2021-01/documents/ap42-enforcementalert.pdf>

Enforcement Alert at 1-2.

Thus, Max Midstream should not be allowed to use AP-42 emission factors and equations to demonstrate that the Terminal expansion does not trigger PSD preconstruction permitting requirements or that impacts from the expansion project are acceptable without providing a justification that this case is one of the “very limited scenarios” where reliance on AP-42 to predict emissions from a specific source over both long and short-term averaging periods is appropriate.

These warnings, from the government agency responsible for publishing, developing, and collecting the very emission factors Max Midstream relies upon in this case must be taken seriously. EPA’s warnings about the practical limitations of AP-42 emission factors generally is bolstered by EPA’s characterization of the specific AP-42 equation Max Midstream used to calculate maximum loading losses for the Terminal. This calculation is key to Max Midstream’s claim that the expansion project is minor for purposes of PSD, because the amount of pollution lost during loading activities determines the utilization of the propose vapor combustion units (“VCUs”), which account for almost all of the NO_x and CO the Terminal will emit. A NO_x or CO increase of less than 4% from these VCUs would be sufficient to trigger PSD preconstruction requirements.

Table 3: Terminal Expansion NO_x and CO Emissions Increases

Pollutant	Represented Source-Wide Emissions (TPY)	Major Source Threshold (TPY)	Difference (TPY)	4% of Marine Control Emissions Cap (TPY)
NO _x	97.03	100	2.97	3.5
CO	97.35	100	2.65	3.5

This razor thin margin is a huge problem for Max Midstream, because the equation the company relies upon to determine how much pollution will be combusted in the proposed VCUs has “*a probable error of +/- 30 percent.*” AP-42, Section 5.2 at 5.2-4 (emphasis added).⁶ Max Midstream should not be allowed to rely on such an imprecise equation to determine the maximum potential annual loading losses from the Terminal because an increase of even 4%—much less than the margin of probable error built into the loading loss equation—would likely result in an increase in NO_x emissions sufficient to trigger PSD requirements. And while it may not be a certainty that an increase in loading losses will drive a one-to-one increase in NO_x and/or CO emissions from Max Midstream’s VCUs, given that the composition of the loading displacement gas changes, which affects the heat content, and that, in turn affects NO_x and CO emissions from the VCUs, the relationship will be very close to one-to-one on an annual basis. Accordingly, it is unreasonable for Max Midstream to rely on an equation that builds in a probable error rate of 30% to calculate loading losses from the Terminal to demonstrate that the project is minor, when a mere increase of 4% would likely trigger major NSR requirements.

⁶ Available electronically at: https://www.epa.gov/sites/production/files/2020-09/documents/5.2_transportation_and_marketing_of_petroleum_liquids.pdf

If the TCEQ wishes to allow Max Midstream to rely on AP-42 emission factors and the AP-42 loading loss equation to limit the Terminal's potential to emit, the agency must establish monitoring methods that are sufficient to determine whether emissions from the Terminal are consistent with the generic emission factors used to establish the Draft Permit's synthetic minor limits. Otherwise, the only enforceable constraints on Max Midstream's potential to emit are the throughput and operational limits represented in the application, which do not ensure that emissions from the Terminal will remain below the applicable significance threshold unless emissions from the Terminal are consistent with the practicably unenforceable emission factors. To make the Draft Permit's synthetic minor limits enforceable, the TCEQ must require Max Midstream to operate NO_x, CO, and VOC CEMS on its VCUs and to use optical gas imaging to monitor for fugitive leaks. Without such direct monitoring, the synthetic limits Max Midstream has agreed to are not practicably enforceable and may not be used to avoid PSD preconstruction permitting requirements. If Max Midstream thinks the cost of enforceable synthetic limits is too high, the proper solution is not approving unenforceable synthetic minor limits; it is requiring Max Midstream to obtain a PSD permit.

Max Midstream also claims—without support—that its proposed emergency flare will not emit *any* particulate matter (“PM”). Completely eliminating all PM from flares is very difficult, especially with flares—like the one Max Midstream proposes to construct—that are not steam assisted. AP-42 indicates that PM from flares most often falls within a range of 0-274 lb/10⁻⁶ BTU. AP-42, Section 13.5, 13.5-4 (Table 13.5-1).⁷ It is very unlikely that Max Midstream will be able to *completely* eliminate PM emissions from its flare on a continuous basis without additional monitoring and control technology that is not required by the Draft Permit. Thus, potential PM emissions from the Terminal represented Max Midstream's application and used to model air quality from the Terminal almost certainly fail to account for all PM that the Terminal will actually emit.

Before the TCEQ may finalize the Draft Permit, it must establish monitoring, testing, and recordkeeping requirements sufficient to assure continuous compliance with the zero PM emissions representation or require Max Midstream to use a more realistic particulate matter emission rate to model air quality impacts from its emergency flare. Monitoring sufficient to ensure continuous compliance is critical, because “[w]ith the advent of ... short-term National Ambient Air Quality Standards [, including 24-hour standards for PM_{2.5} and PM₁₀,] permit limits must be able to account for short term fluctuations.” Enforcement Alert at 1.

2. The Draft Permit fails to assure compliance with Max Midstream's representations regarding the destruction and removal efficiency of its proposed vapor combustion units.

According to Max Midstream's initial application, represented NO_x and CO emission rates from the proposed VCUs as well as the represented VCU VOC destruction and removal efficiency (“DRE”) of at least 99.9% were “based on vendor guaranteed emission factors and a vapor heat content of 20,000 Btu/lb.” Application at 5-2, 5-5. However, when the TCEQ asked Max

⁷ Available electronically at: <https://www3.epa.gov/ttnchie1/ap42/ch13/final/c13s05.pdf>

Midstream to provide this vendor data, so that Max Midstream's emissions calculations could be verified, Max Midstream replied that it has not actually obtained a vendor guarantee:

The vendor selection process is currently underway and a final decision on vendors has yet to be made. However, the attached updated Table A-6 VCU NO_x and CO emission factors are representative of vapor control devices installed at similar terminals and achieve controls which exceed recent BACT determinations.

Response to TCEQ, Dated November 20, 2020 at Response 6.

Max Midstream's application represents a very high VOC DRE of 99.9% at a relatively low minimum combustion temperature of 1,400° F. This DRE is so high, in fact, that Max Midstream contends that it cannot be confirmed by stack testing. Email from Neal Nygaard to Ariel Ramirez, dated February 1, 2021 ("Modern VCUs are capable of achieving control at levels which result in stack exit concentrations that may be below the applicable monitoring detection limits."). To address this possibility, the Draft Permit allows Max Midstream to demonstrate compliance with the 99.9% DRE representation by maintaining VOC emissions from the VCUs at or below 10 ppm at 3% oxygen during the initial stack test. Draft Permit at Special Condition No. 14.

There are several problems with Max Midstream's DRE representations. First, Max Midstream attempts to downplay its initial misrepresentation that the represented VCU DRE is supported by a vendor guarantee by explaining that the represented DRE is also consistent with "vapor control devices installed at similar terminals and achieve controls which exceed recent BACT determinations." But Max Midstream failed to identify any of these similar sources and did not provide information showing that these other VCUs would be able to continuously achieve a 99.9% DRE under conditions comparable to those at the Terminal. It is not enough for Max Midstream to show that controls at other unspecified sources have achieved the "beyond BACT" level of control the company has represented to avoid triggering PSD requirements (and Max Midstream has not even done this). Max Midstream must also demonstrate that its source will achieve that level of control. 30 Tex. Admin. Code § 116.111(a)(2)(G).

Max Midstream also failed to demonstrate that the proposed alternative measure of compliance for its VCUs' VOC DRE, 10 ppmv at 3% O₂, is equivalent to the represented 99.9 % DRE. If Max Midstream must use this alternative to demonstrate compliance with its permit, the company should also be required to use the alternative emission rate to model crude-related air quality impacts. Additionally, Max Midstream's proposal to demonstrate compliance with DRE representations by conducting a single stack test is unacceptable. There are various factors that affect a VCU's performance, including changes in the composition of the materials being combusted. Max Midstream contends that it would not be practical to establish throughput limits for the various materials it will handle at the Terminal, "due to the varying nature of crude oils and crude oil condensates and customer markets at the terminal." Application at 5-1.⁸ Given this

⁸ Max Midstream's suggestion that it is not bound by represented throughput limits represented in its application is mistaken. These throughput limits will be conditions of the Draft Permit, if it is issued. 30 Tex. Admin. Code § 116.116(a).

variability, the very high level of control represented and the proximity of Max Midstream's represented VOC emissions to the PSD significance threshold, Max Midstream must be required to conduct more frequent monitoring of its VCUs' emissions. Specifically, Max Midstream should be required to use VOC CEMS to monitor emissions from its VCUs and to assure compliance with its synthetic minor permit limits across all the different operating conditions authorized by the Draft Permit. Otherwise, Max Midstream should be required to obtain a PSD permit before constructing the Terminal expansion, because the synthetic VOC limits it took to avoid PSD are not practicably enforceable and do not effectively limit the Terminal's potential to emit.

Finally, Commenters are also concerned that Max Midstream failed to show that it will be able to maintain the represented DRE from its VCUs while also complying with represented emission rates for VCU NO_x and CO. According to Max Midstream's application, the VCUs will achieve a VOC DRE of 99.9%, so long as the combustion zone temperature is maintained above 1,400° F. Draft Permit at Special Condition No. 17(A). This is a relatively low combustion zone temperature, and it is unclear that it will be sufficient to maintain the represented DRE across all operating scenarios. For example, Max Midstream indicates that its emergency flare will maintain a temperature of 1,832° F to achieve a much lower DRE between 98 and 99%. Additionally, Max Midstream's February 2021 update to its emission calculations indicates that the operating temperature for its VCUs will be 1,600° F and not 1,400° F required by the Draft Permit. *See* Annual Crude/Crude Condensate Inputs Table, dated February 2021. Given these inconsistencies in Max Midstream's application representations, and given the fact that increasing the VCU combustion zone temperature will result in higher NO_x emissions, the TCEQ should require Max Midstream to install VOC, NO_x, and CO CEMs on its VCUs to determine the proper combustion zone temperature necessary to comply with the represented DRE and to clarify whether this temperature can be maintained without exceeding represented NO_x and CO emission rates taken to avoid triggering PSD preconstruction requirements. If this measure is unacceptable to Max Midstream, the TCEQ should require the company to apply for a PSD permit, because the synthetic limits taken to avoid triggering these requirements are not otherwise practicably enforceable.

B. Max Midstream failed to demonstrate compliance with applicable Texas BACT requirements.

In Texas, projects that are not subject to federal major NSR requirements must comply with Best Available Control Technology, or "BACT," requirements established by the Texas Clean Air Act and the TCEQ's regulations implementing the Texas Clean Air Act. 30 Tex. Admin. Code §§ 116.10(1), 116.111(a)(2)(C). According to this standard, proposed pollution controls must be at least as good as those accepted as BACT in recent permit reviews for the same process and/or industry, unless the applicant demonstrates that such controls would not be as effective at the proposed source, the controls cannot be used at the proposed source due to technical constraints, or that using those controls would be economically unreasonable. *See*, TCEQ Air Permit Reviewer Reference Guide, APDG 6110, Air Pollution Control ("BACT Guidance"), dated January 2011 at 12-13. As the TCEQ's BACT Guidance explains, "BACT for any particular industry is not static," and "before accepting a BACT proposal "[t]he permit reviewer must ensure that the administrative record provided by the applicant ... is sound, comprehensive, and

adequately supports the conclusions of the BACT review.” *Id.* at 11. The BACT Guidance also explains that the “applicant must fully document the basis for air pollution control determinations as it is the applicant’s responsibility to adequately demonstrate that the permit should be issued.” *Id.* at 1. *See also* 30 Tex. Admin. Code § 116.111(a)(2)(C).

Max Midstream’s BACT demonstration is deficient because it fails to include *any* specific information about control technologies applied and control efficiencies achieved at recently authorized similar sources. What’s more, Max Midstream failed to identify any such sources that informed its analysis. Accordingly, Max Midstream has failed to make the demonstration required by § 116.111 and the TCEQ’s BACT Guidance. Below, Commenters flag some additional problems with specific representations related to BACT in Max Midstream’s application materials. These problems are illustrative rather than exhaustive and Commenters reserve the right to present evidence regarding other deficiencies in Max Midstream’s BACT demonstration at a contested case hearing.

1. The proposed NO_x emission rates for VCU units CONT-1 and CONT-2 are too high and the lower limits for the other VCUs are unsupported.

The Draft Permit establishes two different sets of NO_x and CO pollution requirements for VCUs at the Terminal. According to the Draft Permit, units CONT-1 and CONT-2 must comply with a performance standard of 0.10 lb/MMBtu for NO_x and CO. Draft Permit at Special Condition No. 18(D). Units CONT-3 through CONT-11 and CONT-15 through CONT-23 must comply with the significantly more stringent performance standard of 0.02 lb/MMBtu for NO_x and CO. *Id.* If a standard of 0.02 lb/MMBtu for NO_x and CO is BACT for these units, it should also be required as BACT for units CONT-1 and CONT-2, unless Max Midstream demonstrates that there are technical reasons CONT-1 and CONT-2 will be unable to comply with the more stringent standards or that uniform compliance with the more stringent standards is not economically reasonable. Max Midstream has not attempted this demonstration. Accordingly, its application is incomplete.

On the other hand, Max Midstream has also failed to demonstrate that its VCUs will be able to achieve ongoing compliance with the more stringent 0.02 lb/MMBtu NO_x and CO performance standards established by the Draft Permit. This is important because these performance standards are necessary to demonstrate that the expansion project does not trigger PSD preconstruction requirements. Less stringent NO_x and CO requirements established by two recently-issued permits authorizing VCUs at sources subject to more stringent *federal* BACT requirements cast doubt on the achievability of the lower limits requested by Max Midstream. In 2018, the TCEQ issued a PSD permit authorizing construction of a VCU at Oxy Midstream’s Ingleside Energy Center subject to a NO_x limit of 0.0600 lb/MMBtu. *See* RBLC ID TX-0844.⁹ Then, in 2020, the TCEQ issued a permit authorizing construction of a VCU at Motiva’s Port Arthur Refinery with a NO_x limit of 0.1380 lb/MMBtu. *See* RBLC ID TX-0879.¹⁰ Emissions

⁹ Available electronically at:

https://cfpub.epa.gov/rblc/index.cfm?action=PermitDetail.ProcessInfo&facility_id=28571&PROCESS_ID=112357

¹⁰ Available electronically at:

https://cfpub.epa.gov/rblc/index.cfm?action=PermitDetail.ProcessInfo&facility_id=28715&PROCESS_ID=113111

from the VCU's at the Seahawk Terminal that only comply with these less stringent limits would result in NO_x emissions increases triggering PSD preconstruction permitting requirements. And while Max Midstream initially represented that its proposed 0.02 lb/MMBtu CO and NO_x emission limits were supported by a vendor guarantee, Max Midstream has since backtracked from that statement. Accordingly, Max Midstream should be required to provide evidence that its proposed emission rates for CO and NO_x are achievable and the TCEQ should revise the Draft Permit to include continuous direct monitoring to assure compliance with the represented NO_x and CO emission rates. If Max Midstream is unwilling to accept such monitoring requirements, the TCEQ should require it to obtain a PSD permit before constructing the Terminal expansion.

2. The Leak Detection and Repair program mandated by the Draft Permit is not consistent with applicable Texas BACT requirements.

The Draft Permit identifies the TCEQ's 28VHP LDAR program as BACT for fugitive emissions. Draft Permit at Special Condition No. 19. This determination and Max Midstream's application supporting the determination are deficient for several reasons. First, BACT should include a set of technologies that eliminate fugitive VOC emissions to the greatest extent practicable. Such measures include using sealless pumps and compressors as well as leakless valves in every instance, unless Max Midstream demonstrates that there are process constraints or other reasons why that cannot be done cost-effectively. These technologies have been available for decades, and yet there was no consideration of such preventative technologies in Max Midstream's BACT analysis.

Second, using any type of LDAR as BACT for fugitive emissions is unreliable and technically obsolete. Common deficiencies with LDAR programs, including the TCEQ's 28VHP program, are: not identifying all components; using wrong leak definitions; not following Method 21 properly; failing to monitor the maximum leak location; not monitoring long enough to identify existing leaks; holding the Method 21 probe too far away from components; using incorrect or expired calibration gas; not repairing leaking components within the time period specified by the relevant permit; and not keeping detailed and accurate records. LDAR programs, like the one mandated by the Draft Permit, rely on human beings to properly implement a monotonous, repetitive, and tedious set of measurements at hundreds or thousands of individual components in a single day. Given these conditions, it is unsurprising and perhaps inevitable that LDAR programs are often far-less effective at identifying and controlling fugitive emissions than billed.

Third, even if LDAR is a necessary component of BACT for fugitives in this case, Max Midstream failed to demonstrate that 28VHP is the most effective economically reasonable LDAR program available.¹¹ The TCEQ has required compliance with stricter LDAR programs in several recently-issued permits. For example, the TCEQ's 28MID program is in use at the NuStar Corpus Christi Terminal and the Motiva Port Arthur Refinery. Thus, according to the TCEQ's three-tiered BACT methodology, Max Midstream should be required to match these stricter control requirements unless it provides specific evidence demonstrating that the requirements are

¹¹ Information about the TCEQ's various LDAR programs is available electronically at: https://www.tceq.texas.gov/permitting/air/guidance/newsourcereview/fugitives/nsr_fac_eqfug.html

workable for the Seahawk Terminal or that they are economically unreasonable. Max Midstream’s application does not attempt such a demonstration, and, accordingly, it fails to establish that 28VHP is BACT for fugitives in this case.

Finally, even if a LDAR program is selected as BACT in this case, it should be supplemented using surveillance tools, like optical gas imaging. LDAR supplemented by OGI is superior to LDAR alone because it allows sources to rapidly identify sources of large leaks, allowing such leaks to be repaired quickly, which, in turn, significantly reduces fugitive emissions. These advantages are so significant that EPA has included OGI in its New Source Performance Standards (“NSPS”) for oil and natural gas facilities since 2016. Industry has also long recognized the weaknesses of LDAR programs and that supplementing LDAR programs with OGI offers a significant improvement over LDAR programs alone. The improved leak detection and repair time possible with the use of OGI benefits both the environment and the operator. ExxonMobil provided the following graphical illustration on the benefits of using OGI:¹²

Method 21 vs. OGI for LDAR



Method 21	OGI Technology
	
<ul style="list-style-type: none">• Finding a leak is like looking for a needle in a haystack – and you need to inspect every “straw”!• Inspecting hundreds of components to find one leak (or no leaks)	<ul style="list-style-type: none">• OGI allows for rapid screening of components – focusing on the “needle” rather than every “straw”• Much more efficient method for finding significant leaks• Potential to reduce the cost of LDAR compliance

Because OGI is a proven technology that is required by the Oil and Gas NESHP and that has been successfully implemented at existing sources to reduce fugitive emissions, the TCEQ

¹² New Optical Gas Imaging Technology for Quantifying Fugitive Emission Rates, Powerpoint Presentation by Providence Photonics and ExxonMobil, available electronically at: <http://content.4cmarketplace.com/presentations/NewOpticalGasImagingTechnologyforQuantifyingFugitiveEmissionRates4C2015.pdf>

should require it as part of the BACT regime for reducing fugitive emissions at the Seahwak Terminal.

VI. Conclusion

Commenters have demonstrated that Max Midstream has failed to make demonstrations required by 30 Tex. Admin. Code § 116.111, that S. Diane Wilson and Waterkeeper are entitled to a contested case hearing on Max Midstream's application and the Draft Permit, and that the Executive Director or Office of the Chief Clerk should convene a public meeting concerning this project. Accordingly, the TCEQ may not issue the requested permit authorizing Max Midstream's proposed expansion project before correcting the deficiencies Commenters have identified and convening a contested case hearing to consider contested issues of fact and law preserved by the Initial Comments and supplemented by this filing.

Sincerely,

/s/ Gabriel Clark-Leach

Gabriel Clark-Leach

ENVIRONMENTAL INTEGRITY PROJECT

1206 San Antonio St.

Austin, Texas 78701

Telephone: (425) 381-0673

E-mail: gclark-leach@environmentalintegrity.org

Tom Gosselin

TEXAS RIOGRANDE LEGAL AID, INC.

3825 Agnes St.

Corpus Christi, TX 78405

Telephone: (361) 880-5436

E-Mail: tgosselin@trla.org

Jennifer Richards

TEXAS RIOGRANDE LEGAL AID, INC.

4920 N. I-35

Austin, TX 78751

Telephone: (512) 374-2758

Fax: 447-3940 (fax)

E-mail: jrichards@trla.org

From: gclark-leach@environmentalintegrity.org
To: [PUBCOMMENT-OCC](#)
Subject: Public comment on Permit Number 162941
Date: Monday, March 7, 2022 6:11:50 PM
Attachments: [20210604 - Max Midstream Comments and Public Meeting Request \(corrected\)1.pdf](#)

REGULATED ENTY NAME SEAHAWK CRUDE CONDENSATE TERMINAL

RN NUMBER: RN106209190

PERMIT NUMBER: 162941

DOCKET NUMBER: 2022-0157-AIR

COUNTY: CALHOUN

PRINCIPAL NAME: MAX MIDSTREAM TEXAS LLC

CN NUMBER: CN605726959

FROM

NAME: Gabriel Clark-Leach

E-MAIL: gclark-leach@environmentalintegrity.org

COMPANY: Environmental Integrity Project

ADDRESS: 1206 SAN ANTONIO ST
AUSTIN TX 78701-1834

PHONE: 4253810673

FAX:

COMMENTS: Please find attached a corrected copy of San Antonio Bay Estuarine Waterkeeper's June 4, 2021 contested case hearing request. The filing has been corrected to include the physical address for two Waterkeeper members.