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David F. Garcia, P.E.
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RE: Comments on Bluewater Texas Terminal LLC, Docket No. EPA-R06-OAR-2020-0510, Permit Nos.: R6PSD-DWP-GM8, R6T5-DWP-GM8, and R6NOMA-DWP-GM8

Dear Mr. Garcia:

Earthjustice and the Environmental Integrity Project submit these comments on behalf of the Carrizo/Comecrudo Tribe of Texas, Center for Biological Diversity, Clean Economy Coalition of Corpus Christi, Environment Texas, Errol Summerlin, For the Greater Good, Indigenous People of the Coastal Bend, Ingleside on the Bay Coastal Watch Association, Islander Green Team, Public Citizen, Texas Campaign for the Environment, Sierra Club, Sierra Club - Coastal Bend, and Surfrider Foundation – Coastal Bend Chapter. Bluewater Texas Terminal LLC ("Bluewater") applied to EPA for Clean Air Act approval to build a new major-source offshore loading terminal near Corpus Christi, Texas ("Oil Terminal") that would export up to 384 million barrels of crude oil per year on Very Large Crude Carriers ("VLCCs").

On November 12, 2020, EPA released a public notice announcing proposals to approve Bluewater's application, including a draft Clean Air Act 112(g) Determination, a draft Prevention of Significant Deterioration ("PSD") preconstruction permit, and a draft Title V permit operating permit (collectively, "Draft Permits"). The Draft Permits would allow Bluewater to emit a stunning 19,000 tons per year of Volatile Organic Compounds ("VOCs") and 833 tons per year of hazardous air pollutants ("HAPs").[1]

[1] Draft Title V Permit for Bluewater, p. 13, (Nov. 8, 2020).

One such HAP is the potent carcinogen benzene, which Bluewater would be allowed to emit at a rate of 66 tons per year.[2]

Fortunately, the Deepwater Port Act ("DWPA") and the Clean Air Act foreclose EPA's decision to authorize construction of a super-emitting offshore crude export terminal, like Bluewater's Oil Terminal. The permits would impermissibly exempt Bluewater from EPA regulations that sharply limit pollution from offshore loading terminals, and do not implement the Clean Air Act's mandate to install the "best" or "maximum" available pollution controls to protect public health and the environment. Specifically, EPA must amend the Draft Permits to require pollution controls that would reduce Bluewater's enormous emissions of HAPs and VOCs by at least 95 percent. These controls, including vapor recovery and/or vapor combustion, are legally mandated under the Clean Air Act's National Emission Standard for Hazardous Air Pollutants ("NESHAPs") or as Maximum Achievable Control Technology ("MACT") under Section 112(g) to control HAPs. The same emission limitation is also the Best Available Control Technology ("BACT") to reduce Bluewater's VOCs, under the Prevention of Significant Deterioration program.

In addition to these critical problems, the Draft Permits and permit record suffer from several other Clean Air Act defects that EPA must correct before it may authorize the project:

- The Draft Title V Permit fails to establish monitoring requirements sufficient to make the unreasonably high emission limits enforceable;

- EPA's proposal to authorize this project under a Chapter 116 New Source Review permit is prohibited by the terms of the Texas Standard Permit that Bluewater has claimed to authorize the onshore Midway Facility component of this project.

Finally but significantly, EPA failed to conduct the environmental justice analysis required by Executive Order, even as Bluewater's onshore and offshore infrastructure and other oil-and-gas and petrochemical projects pose mounting risks to Coastal Bend environmental justice communities.

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[2] *See* EPA, Draft Statement of Basis for Notice of MACT Approval, p. 60 (providing breakdown of HAP pollutants and emissions rates from Oil Terminal).

Based on these serious deficiencies, EPA must deny the Draft Permits for Bluewater's Oil Terminal.

I. Background of the Bluewater project.

As depicted in its Clean Air Act and Deepwater Port Act license applications,[3] the Oil Terminal is a connected series of new oil infrastructure that would stretch across residential areas of San Patricio County, Texas and into the Gulf of Mexico. Onshore, Bluewater's co-owner, Phillips 66, would build a proposed, "multi-use" crude oil storage tank farm near the communities of Taft and Portland (called the "Midway Facility").[4] Further east, Bluewater would construct a 12-acre operations facility on Harbor Island (the "Harbor Island Facility"), a small wedge of barrier island that plays a keystone role in supporting the region's ecology, fishing, and recreation industries. Bluewater also plans to build two, single-point-mooring buoys that would transfer oil onto VLCCs, floating 15 nautical miles from shore in the Gulf of Mexico ("Oil Buoys").

To transfer crude-oil across that network, Bluewater plans to dredge or trench 56-miles of right of way to install a parallel set of 30" pipelines that would connect the Midway Facility to the Harbor Island Facility, and to the Oil Buoys. The pipelines would pass through a wide swathe of North Bay residential areas, especially in the City of Aransas Pass, and cut through unique coastal wetlands and seagrass habitat, barrier islands, and Gulf-of-Mexico seabed. Bluewater would pump crude oil through the pipelines at the rate of 80,000 barrels per hour.

Bluewater's pipelines would terminate in the sea floor beneath the Oil Buoys at a depth of about 89 feet. That depth is required to service fully laden VLCCs, which are so massive as to draft about 75 feet, while holding a maximum of about 2 million barrels of oil each. Crude oil would flow up the water column from the pipelines' end to the Buoys in a set of dangling hoses. The Oil Buoys could accommodate a total of two VLCCs simultaneously. In that configuration, the two VLCCs would spend more than

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[3] *See* Bluewater DWPA App. Vol. II, Section 3, "Project Description," Document ID. MARAD-2019-0094-0004, https://beta.regulations.gov/document/MARAD-2019-0094-0004.

[4] *See* Exhibit 2, Standard Permit Registration No. 158065 (Aug. 21, 2019) (registering air permit for the Midway Facility to Phillips 66 Pipeline LLC).

two days onsite to fully load.[5,6] Bluewater anticipates filling up to 16 of these tanks each month.[7] During that loading period, oil would flow continuously through hoses that stretch from the Buoys across open water to the VLCCs. The VLCC tankers would be allowed to "weathervane" around the Oil Buoys, subject to the forces of the open Gulf.

Bluewater would not be built in a vacuum. The area of San Patricio County and Harbor Island where Bluewater hopes to build is faced with a mounting array of proposed or newly built oil-and-gas and petrochemical infrastructure and its associated high levels of pollution. This wave of development includes three proposed desalination plants, the Exxon-SABIC petrochemical plant, new LNG export capacity, and export terminals proposed to serve VLCCs that would overlap significantly with Bluewater's onshore and inshore components. This build-out threatens to further undermine the region's environment and public health. It also poses risks to the region's longstanding tourism and fishing industries that depend on environmental quality and to environmental justice communities that may be disproportionately impacted.

II. The Draft Permits would allow Bluewater to emit dangerous levels of air pollution

The shockingly high Draft Permit emission limits reflect EPA's decision not to require Bluewater to install any add-on controls to reduce VOC and HAP emissions resulting from the crude oil loading process. In the Draft Notice of MACT Approval, EPA takes the unprecedented step of exempting Bluewater, an offshore loading terminal, from its Subpart Y NESHAP, which requires that new offshore loading terminals reduce HAP emissions by 95 percent.[8] In place of the clearly-applicable NESHAP, EPA has allowed Bluewater to engage in a case-by-case MACT determination, under Section 112(g) of the Act.[9] Based on Bluewater's thinly-documented case-by-case MACT application, EPA selected submerged-fill-loading as

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[5] EPA, Draft Statement of Basis for Notice of MACT Approval, p. 1.

[6] Bluewater specifies that it can load a single VLCC at 80,000 barrels per hour, and two VLCCs simultaneously at 40,000 barrels per hour each. 2 million barrels/40,000 barrels per hour = 50 hours. A single VLCC could load in as little as 25 hours at that rate.

[7] Bluewater PSD Application, pp. 3-4.

[8] *See* EPA, Draft Statement of Basis for Notice of MACT Approval; 40 C.F.R. § 63.562(b)(4).

[9] *See* EPA, Draft Statement of Basis for Notice of MACT Approval, pp. 8, 22–23.

the "maximum degree of emissions reduction achievable" for MACT. EPA made this determination despite acknowledging that submerged-fill only reduces emissions by about 60 percent and is already required by Coast Guard regulations.[10] EPA also adopts submerged fill loading as BACT, rejecting vapor-combustion pollution control, claiming it is "on the high end of cost effectiveness and may in fact be unreasonable" in cost.[11] Essentially, EPA has decided that the Clean Air Act does not impose any meaningful pollution control requirements for Bluewater's terminal beyond what the Coast Guard's rules require. The Draft Permits' no-controls-required approach is incompatible with federal law, fails to protect the public health, and jeopardizes the well-being of wildlife and ecosystems that will be exposed to air pollution from Bluewater's operation.

A. The Draft Permits' would enable unprecedented amounts of VOC and associated HAP pollution.

EPA's proposal to authorize Bluewater's Oil Terminal without requiring add-on controls to reduce VOC and HAP emissions would allow construction and operation of a super-emitting source without rival in the United States. As shown by the tables below, the Draft Permits would allow Bluewater's Oil Terminal to become the largest source of VOC and benzene in the United States by a wide margin. The amount of VOC air pollution authorized by the Draft Permits is more than double the amount of VOC emitted by any other source identified in the most current reporting year for EPA's National Emissions Inventory.

Table 1: Top VOC Emitting Sources in the United States (2017)[12]

Source Name	State	Tons of VOC Emitted
Bluewater Oil Terminal	**TX/Offshore**	**18,936 (Draft Permit Limit)**
1. Jack Daniel Distillery	TN	9,220
2. Hartsfield-Jackson Atlanta International Airport	GA	8,914
3. Green River Works	WY	6,349

[10] *See* EPA, Draft Statement of Basis for Notice of MACT Approval, pp. 8, 14, 22–23; 46 C.F.R. § 153.282 (U.S. Coast Guard regulation requiring submerged fill loading).

[11] EPA, Draft Statement of Basis for PSD and Title V Permits, pp. 27–28.

[12] *Id*.

4. Eastman Chemical Company	TN	4,363
5. Jim Beam Brands Co.	KY	4,022

Indeed, the amount of pollution contemplated by the Draft Permits is more than twice that of any other single source in the U.S. and would even eclipse the total combined emissions from the 200+ major sources located in the *highest-VOC-emitting county in the United States* (Harris County, Texas).

Table 2: Harris County, Texas VOC Emissions Reported to Texas Emissions Inventory[13]

Tons	**Year**	**Number of Sources Reporting**
18,936	**Bluewater Oil Terminal Draft Permit Limit**	
16,585.5423	2018	273
16,624.8672	2017	277
15,820.1813	2016	276
16,226.6449	2015	279
16,671.8697	2014	283

One of the most significant sources of VOC emissions in Texas is petroleum refineries. Four of the ten largest petroleum refineries in the United States are located in Texas.[14] Refineries in Texas process approximately 5.8 million barrels of crude oil each day and comprise 31 percent of all refining capacity in the United States.[15] These sprawling complexes occupy thousands of acres of land and are comprised of equipment that heats, pressurizes, and treats crude oil. Nearly all these activities result

[13] Texas's 2014-2018 Emissions Inventory data is available electronically at: https://www.tceq.texas.gov/assets/public/implementation/air/ie/pseisums/2014_2018statesum.xlsx.

[14] Oil and petroleum products explained: *Refining crude oil*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/energyexplained/oil-and-petroleum-products/refining-crude-oil-refinery-rankings.php (listing top 10 U.S. refineries operable capacity, as of Jan. 1, 2020).

[15] U.S. EIA State Profile and Energy Estimates for Texas, available electronically at: https://www.eia.gov/state/?sid=TX#tabs-3.

in VOC emissions. Yet, VOC emissions authorized by the Draft Permit are higher than the combined VOC emissions from all these refineries.

Table 3: VOC Emissions from Draft Permits, as Compared to Petroleum Refineries Reporting to Texas Emissions Inventory[16]

Tons	Year	Number of Sources Reporting
18,936	**Bluewater Oil Terminal Draft Permit Limit**	
14,962.6029	2018	28
17,095.7055	2017	28
16,649.9127	2016	28
18,161.6919	2015	28
18,205.5424	2014	27

The Draft Permits would also authorize Bluewater's Oil Terminal to emit more benzene—a known carcinogen—than any single source reported to EPA's Toxic Release Inventory in 2019.

Table 4: Top Benzene Emitters (2019)[17]

Source Name	State	Tons of Benzene Emitted
Bluewater Oil Terminal	**TX/Offshore**	**66 (Draft Permit Limit)**
1. Blanchard Refining Galveston Bay Refinery	TX	49
2. Diamond Shamrock Refinery	TX	47
3. Deer Park Services	TX	45
4. Lyondell Chemical Co.	TX	42
5. EES Cok Battery	MI	39

[16] Texas's 2014-2018 Emissions Inventory data is available electronically at: https://www.tceq.texas.gov/assets/public/implementation/air/ie/pseisums/2014_2018statesum.xlsx.

[17] EPA's TRI data is available electronically at: https://www.epa.gov/toxics-release-inventory-tri-program/tri-basic-data-files-calendar-years-1987-2019.

These unprecedented numbers are all the more staggering given that much lower emissions are possible with the addition of pollution controls proposed by similar sources and that are very clearly mandated by EPA's own regulations, as explained in Sections III, IV, V – Subpart Y, MACT, BACT that follow. And as high as these emission limits are, they may actually drastically underestimate the amount of pollution emitted from Bluewater's Oil Terminal. This is so, because the method Bluewater used to calculate its loading loss emissions indicates a probable error rate of plus or minus 30 percent, as explained further in Section VII – Title V.[18]

The numbers are also shocking, considering *how* and *where* pollution from Bluewater's Oil Terminal will be released into the air. Bluewater will be authorized to release quantities of VOC exceeding those emitted by all major sources in Harris County from one or two tankers, as they float around the two SPM buoy systems that form the Oil Terminal.[19] These emissions will occur for prolonged periods when the Oil Terminal will be operated at capacity to fill VLCC-sized vessels. This steady, massive, and uncontrolled stream of dangerous air pollution leaking from large vessels would make the Bluewater Oil Terminal an unprecedented super-emitting source. Neither Bluewater nor EPA has undertaken an adequate evaluation of the potential effects of the Oil Terminal's massive emissions as they deposit into the ocean, hover in the air, or waft towards shore.

B. Bluewater's air pollution could threaten Coastal Bend communities and the environment.

Emissions of the magnitude EPA proposes to approve could result in unacceptable human health and the environmental impacts, both near the facility and downstream of the prevailing onshore winds.[20] The Buoys would emit large quantities of hazardous air pollutants, including the following dangerous "BTX" chemicals that volatilize from crude oil:[21]

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[18] AP-42, Section 5.2 at 4 ("Emissions from loading petroleum liquid can be estimated (with a probable +/- 30 percent) using the following expression[.]"); Bluewater PSD Application at 3-4 (indicating that loading losses were calculated using AP-42, Section 5.2, Equation (1)).

[19] EPA, Statement of Basis, PSD-TV Permits, Appendix, Figure 3.

[20] *See* Bluewater DWPA Appl. Vol. II, App'x T, Air Dispersion Modeling Results., pp. 3-9 (providing wind rose showing a predominately southeasterly wind flow near the Oil Buoys).

[21] *See* EPA, Draft Statement of Basis for Notice of MACT Approval, p. 60 (providing breakdown of HAP pollutants and emissions rates from Oil Terminal).

- Benzene (66 tons per year): Benzene is a known carcinogen, which is linked to leukemia. Even small amounts of benzene can be harmful over time. For instance, EPA has set a goal of eliminating any concentration of benzene from drinking water (i.e., 0 parts per billion), out of concern that regularly consuming any amount of benzene could pose an unacceptable health risk.[22] EPA estimates that inhaling air with concentrations of as low as 13 micrograms per cubic meter [$\mu g/m^3$] of benzene over a lifetime is likely to cause one additional cancer case for every 10,000 people exposed.[23] For context, Valero's Corpus Christi East refinery produces net fenceline concentrations of benzene at that rate of concern, 13 $\mu g/m^3$.[24] Operation of the Bluewater terminal would likely result in even higher concentrations of benzene, because the Draft Permits authorize higher benzene emission rates that would occur over a much smaller area.[25]

  Short-term exposure to high concentrations of benzene lasting between five and ten minutes may be sufficient to kill a human being.[26] In cases where such exposure does not lead to death, it will likely cause irritation, dizziness, headaches, or unconsciousness.[27] Studies of exposed workers show that benzene may harm women's reproductive organs and alter their menstrual periods, while animal tests have shown it can adversely affect fetal development.

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[22] Public Health Statement for Benzene, Centers for Disease Control, Agency for Toxic Substances & Disease Registry (Aug. 2007), https://www.atsdr.cdc.gov/phs/phs.asp?id=37&tid=14#bookmark05.

[23] B. Kunstman, et al., *Monitoring for benzene at refinery fencelines: 10 Oil Refineries Across U.S. Emitted Cancer-Causing Benzene Above EPA Action Level*, ENVIRONMENTAL INTEGRITY PROJECT (Feb. 6, 2020), https://environmentalintegrity.org/wp-content/uploads/2020/02/Benzene-Report-2.6.20.pdf.

[24] *Id.*

[25] Valero reported an average of 15 tons (30,000 lbs) of benzene released from 2007 to 2019, as compared to the 66 tons per year of benzene emissions contemplated by the Draft Permits. TRI Search Plus, EPA, https://edap.epa.gov/public/extensions/TRISearchPlus/TRISearchPlus.html (last visited Jan 4, 2021).

[26] Public Health Statement for Benzene, Centers for Disease Control, Agency for Toxic Substances & Disease Registry (Aug. 2007), https://www.atsdr.cdc.gov/phs/phs.asp?id=37&tid=14#bookmark05.

[27] Toxicological Profile for Benzene, pp. 4–7, U.S. DEP'T. OF HEALTH AND HUMAN SERV., AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, (Aug. 2007), https://www.epa.gov/sites/production/files/2014-03/documents/benzene_toxicological_profile_tp3_3v.pdf.

- Toluene (62 tons per year): Toluene exposure is linked to central nervous system depression, developmental deficits to the central nervous system, as well as fatigue, sleepiness, headaches, and nausea.[28]

- Xylene (33 tons per year): Xylene exposure is associated with respiratory, cardiovascular, and kidney effects, as well as central nervous systems effects such as headaches, dizziness, fatigue, tremors, and incoordination.[29]

VOCs as a class pose serious health and environmental threats. VOCs alone can irritate the eyes, nose, and throat, cause difficulty breathing and nausea, as well as a variety of other risks depicted below.[30]

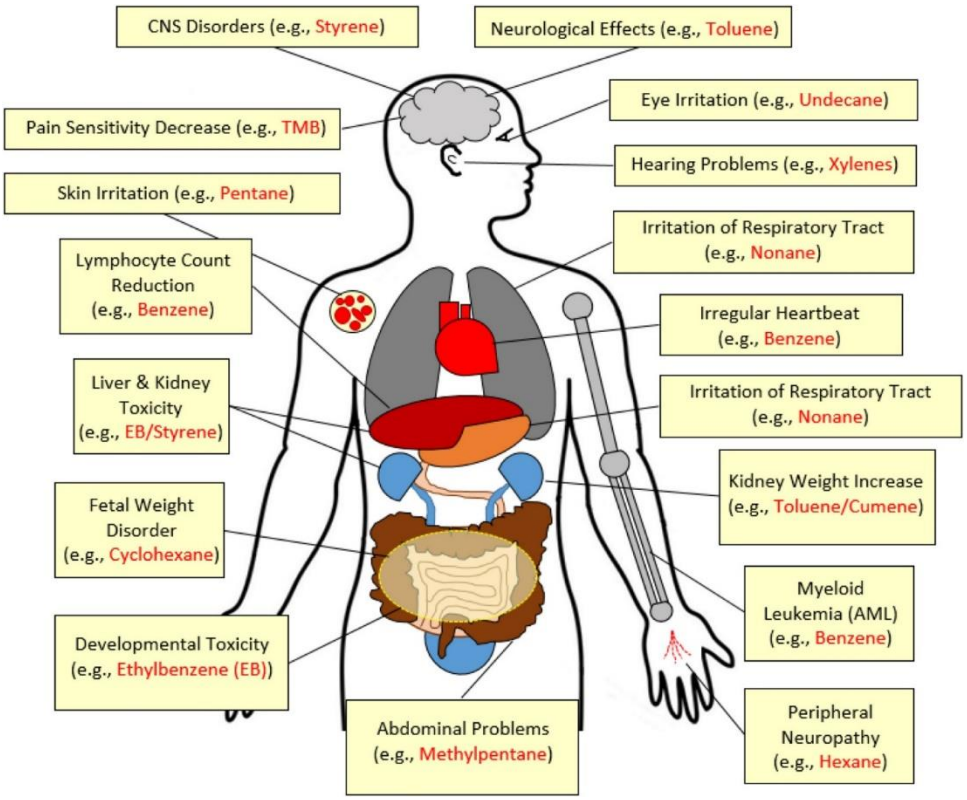
Figure 1. Diagram of impact on human health from various VOCs (CNS = central nervous system).[31]

[28] EPA, Toluene Hazard Summary, https://www.epa.gov/sites/production/files/2016-09/documents/toluene.pdf.

[29] EPA, Xylenes Hazard Summary, https://www.epa.gov/sites/production/files/2016-09/documents/xylenes.pdf.

[30] Volatile Organic Compounds, Am. Lung Ass'n. (last updated Feb. 12, 2020), https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds.

[31] H. Rajabi, et al., *Emissions of volatile organic compounds from crude oil processing – Global emission inventory and environmental release*, 727 SCIENCE OF THE TOTAL ENVIRONMENT 138654 (2020).



VOCs also react with nitrogen oxides (NO_x)[32] and sunlight to form ozone (also known as "smog").[33] When inhaled, ozone attacks lung tissue, causes asthma attacks and shortness of breath, exacerbates preexisting lung conditions, and leads to premature death from both short- and long-term exposures.[34] Ozone exposure also can cause cardiovascular harm, such as heart attacks, strokes, or congestive heart failure.[35] The American Lung Association explains that "winds can carry ozone far from where it formed, even internationally across borders and across the oceans."[36] Bluewater acknowledges that the ozone emissions from its facility could pose significant

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[32] The Project would produce 1,120 tons per year of NO_x, from VLCC, tug, and workboat ship engines. Bluewater DWPA Appl. Vol. II, at p. 13-31, Document ID. MARAD-2019-0094-0004, at regulations.gov, https://beta.regulations.gov/document/MARAD-2019-0094-0004.

[33] Volatile Organic Compounds, Am. Lung Ass'n. (last updated Feb. 12, 2020), https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds.

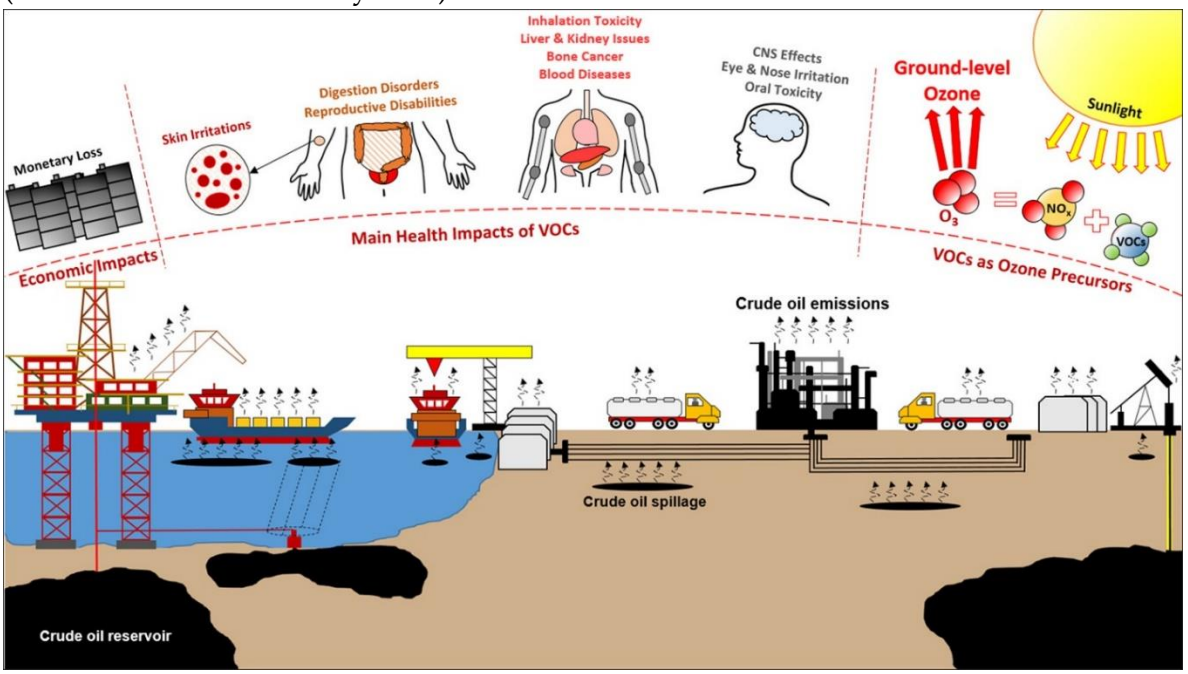
[34] Ozone, Am. Lung Ass'n. (last updated Apr. 20, 2020), https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/ozone.

[35] *Id.*

[36] *Id.*

environmental impacts, both overwater and onshore.[37] These emissions would mix with other onshore and offshore pollution to add to the cumulative risks that Coastal Bend communities face. EPA's decision to allow Bluewater to construct its loading operation without any controls to limit air pollution may have dire consequences for mariners, fishers, and workers in the area of the Oil Buoys, as well as downwind communities.

Figure 2. Diagram of health impacts of VOCs from crude oil operations and emissions (CNS = central nervous system).[38]



Deposition of air pollutants from industrial emissions can also drastically affect water quality in coastal waters by increasing the pollutant loadings of these waterbodies.[39] Pollutants emitted to the air can find their way to coastal waters via wet deposition (e.g., rain), dry deposition (e.g., gravitational settling), and indirectly from atmospheric deposition into streams, rivers, or runoff from land surfaces that reach

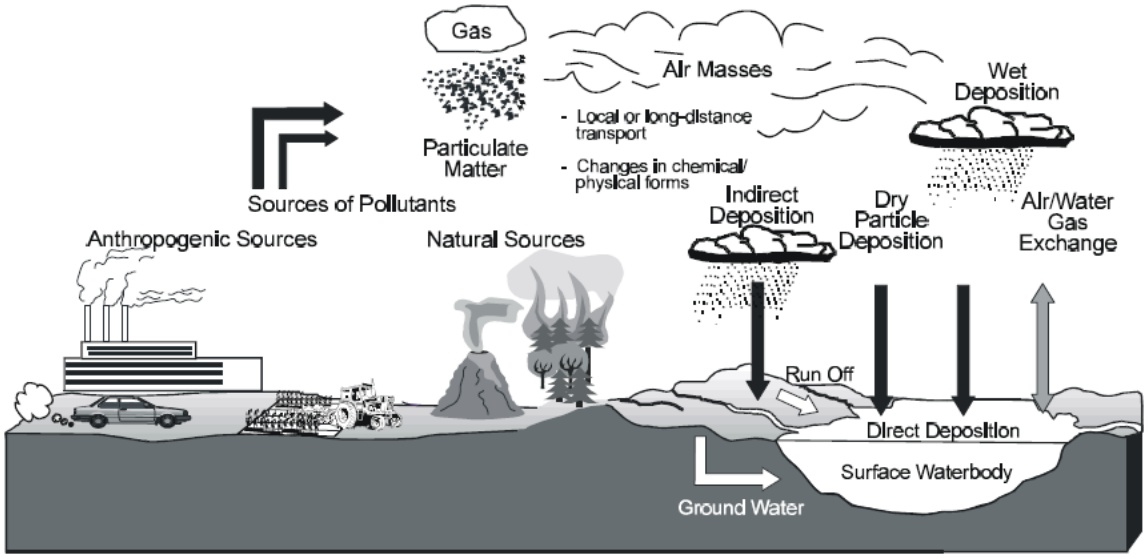
[37] Bluewater DWPA Appl. Vol. II, at p. 13-29, Document ID. MARAD-2019-0094-0004, at regulations.gov, https://beta.regulations.gov/document/MARAD-2019-0094-0004.

[38] H. Rajabi, et al., *Emissions of volatile organic compounds from crude oil processing – Global emission inventory and environmental release*, 727 SCIENCE OF THE TOTAL ENVIRONMENT 138654 (2020).

[39] U.S. ENVTL. PROT. AGENCY, *Deposition of air pollutants to the Great Waters, Third report to Congress* 22 (2000).

coastal waters.[40]

Figure 3. Diagram of atmospheric deposition of industrial emissions to coastal water bodies.[41]



III. EPA must apply NESHAP Subpart Y and its requirement that Bluewater reduce HAP emissions by 95 Percent.

EPA's decision to exempt Bluewater from requirements in its Subpart Y NESHAP, which establishes pollution control requirements for marine tank vessel loading operations, is unreasonable and contrary to law. EPA ignores the plain language of its regulations, which unambiguously apply to the Oil Terminal, and improperly turns to portions of Subpart Y's administrative record to paper over what the rules clearly require.[42] The Supreme Court has clearly and repeatedly rejected this approach to regulating. The Court's holdings are aptly summarized by the following passage from *Kisor v. Wilkie*:

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[40] *Id.*

[41] *Id.*

[42] *See* EPA, Statement of Basis for Notice of MACT Approval at pp. 4–5 (Nov. 9, 2020) (looking to the rule's "administrative record," to agree "with BWTX [Bluewater] that the record for Subpart Y *may not fully support* the inclusion of BWTX's proposed offshore SPM buoy system") (emphasis added).

> First and foremost, a court should not afford *Auer* deference unless the regulation is genuinely ambiguous. If uncertainty does not exist, there is no plausible reason for deference. The regulation then just means what it means—and the court must give it effect, as the court would any law. Otherwise said, the core theory of *Auer* deference is that sometimes the law runs out, and policy-laden choice is what is left over. But if the law gives the answer—if there is only one reasonable construction of a regulation—then a court has no business deferring to any other reading, no matter how much the agency insists it would make more sense. Deference in that circumstance would permit the agency, under the guise of interpreting a regulation, to create *de facto* a new regulation.[43]

Hence, EPA may not preference policy over plain language unless a regulation is genuinely ambiguous. The relevant provisions of Subpart Y are not ambiguous. Moreover, the materials EPA relies upon to support its decision to exempt Bluewater from Subpart Y pollution control requirements only reinforce the text's mandate that Subpart Y apply to the Oil Terminal.

A. EPA's Subpart Y Regulations Unambiguously Apply to Bluewater's Oil Terminal.

To decide whether the Oil Terminal is an affected source, EPA must look to the plain meaning of the regulatory definition.[44] Affected sources include any "**new major source offshore loading terminal**."[45]

The Oil Terminal is undisputedly a "new major source," with a potential to emit about 833 tons per year of HAPs, far beyond the major-source threshold of 10 tons per year of any single HAP, or 25 tons per year of any collection of HAPs.[46]

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[43] *Kisor v. Wilkie*, 139 S.Ct. 2400, 2415 (2019) (internal citations and quotation marks omitted).

[44] *TSG Inc. v. EPA*, 538 F.3d 264, 271 (3d Cir. 2008) (rejecting polluter's attempt to seek exemption from NESHAP applicability, holding that the regulation's plain language, not what EPA "might have intended" governs); *see also Kisor*, 139 S.Ct., at 2414–18 (describing circumstances in which court could defer to agency interpretations that expand on regulatory text).

[45] *See* 40 C.F.R. § 63.561.

[46] *See* 40 C.F.R. §§ 63.560(a)(1), 63.561.

It is also an "offshore loading terminal." An "[o]ffshore loading terminal means a location that has at least **one loading berth**[47] **that is 0.81 km (0.5 miles) or more from the shore** that is used for mooring a marine tank vessel and loading liquids from shore."[48] The Oil Terminal is "a location" that "has at least one loading berth," is located "0.81 km (0.5 miles) or more from the shore," and will be used for "mooring a marine tank vessel and loading liquids from shore."[49] Specifically, the Oil Terminal contains two loading berths, which are the single point mooring systems described on pages 2-3 through 2-6 of Bluewater's MACT application. "Loading berth" unambiguously applies to equipment at the Oil Terminal that is necessary for it to accomplish its primary purpose, *i.e.*, "to fill marine tank vessels."[50] These loading berths will be located approximately 15 nautical miles from Matagorda Island.[51] Marine vessels using the Oil Terminal will be connected to—or "moored" to the single point mooring buoy system while oil is pumped through a pipeline end manifold to the buoy and transferred into the marine vessel.[52]

While the Oil Terminal would meet the sole distance requirement of being located more than 0.5 miles from shore, EPA has exempted the Oil Terminal on the basis that it is somehow "too far" from shore.[53] But the language does not impose and by no legal necessity would require the Subpart Y provision to state a maximum outer distance. To the contrary, Subpart Y's drafters already considered the question of a terminal's distance from shore. The regulations drew one dividing line, between terminals that are greater than 0.5 miles from shore, like the Oil Terminal, and terminals that are less than 0.5 miles from shore ("onshore"), like more traditional ports.[54] Subpart Y treats

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[47] The regulation defines "loading berth" expansively to include "the loading arms, pumps, meters, shutoff valves, relief valves, and other piping and valves necessary to fill marine tank vessels. The loading berth includes those items necessary for an offshore loading terminal." 40 C.F.R. § 63.561.

[48] 40 C.F.R. § 63.561. A "[m]arine tank vessel means any tank ship or tank barge that transports liquid product such as gasoline or crude oil in bulk." *Id.*

[49] 40 C.F.R. § 63.561 (defining "offshore loading terminal" and "loading berth").

[50] 40 C.F.R. § 63.561 (defining "loading berth").

[51] Bluewater MACT Application at 2-3.

[52] *Id*. at 2-4.

[53] *See* EPA, Statement of Basis for Notice of MACT Approval, pp. 6–8 (Nov. 9, 2020) (arguing the Oil Terminal may be further from shore than terminals EPA considered when crafting Subpart Y).

[54] Subpart Y defines "Terminal," to mean, "all loading berths at **any land or sea based structure(s)** that loads liquids in bulk onto marine tank vessels." 40 C.F.R. 63.561 (emphasis added). It then distinguishes

terminals within these subcategories differently. New onshore terminals are subject to the regulation's strictest, 98 percent HAPs reduction requirement.[55] Existing onshore terminals must comply with the next-most-stringent, 97 percent reduction emissions limit. Meanwhile, newly built offshore terminals are subject to a considerably less strict, 95 percent reduction requirement.[56] Granting Bluewater an exemption from Subpart Y would ignore this careful regulatory scheme.

Granting Bluewater an exemption from Subpart Y based on its distance from shore would also neglect the responsibility Congress assigned EPA under the Deepwater Port Act. Congress enacted the DWPA precisely because it wished to regulate deepwater ports located beyond the territorial limits of the United States in a manner that "provide[s] for the protection of the marine and coastal environment to prevent or minimize any adverse impact which might occur as a consequence of the development of such ports."[57] Ports subject to the DWPA are, by definition, located farther offshore than sources located *within* the territorial limits of the United States and subject to state-implemented air permitting procedures. When Congress promulgated the DWPA, it nonetheless provided that Clean Air Act requirements apply to ports licensed under the Act "in the same manner as if such port were an area of exclusive Federal jurisdiction located within a State."[58] In promulgating the DWPA, Congress was clear that "[n]othing in this chapter shall be construed to relieve, exempt, or immunize any person from any other requirement imposed by Federal law, regulation, or treaty."[59] In fact, the Senate Report for the Deepwater Port Act specifically indicates that deepwater ports regulated by the Act would be subject to technology-based standards promulgated by EPA.[60] In 1996, after EPA promulgated its Subpart Y regulations, Congress revised the DWPA to address concerns expressed by the Louisiana Offshore Oil Port ("LOOP") that the DWPA "overburdened their deepwater port with certain unnecessary

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between offshore and onshore or nearshore terminals for purposes of regulation. *See* 40 C.F.R. § 63.562(b)(2),(3).

[55] 40 C.F.R. § 63.562(b)(3).

[56] 40 C.F.R. § 63.562(b)(4).

[57] 33 U.S.C. § 1501(a).

[58] 33 U.S.C. § 1518(a)(1).

[59] *Id*.

[60] 1974 U.S.C.C.A.N. 7529, 7563.

environmental monitoring requirements and overlapping form of Federal regulation."[61] The record for this revision indicates that Congress understood that regulations related to environmental impacts from offshore terminals might be particularly expensive. Nonetheless, Congress's revisions to the DWPA in 1996 left provisions making Clean Air Act requirements, like Subpart Y, applicable to deepwater ports intact. Thus, EPA's determination that Bluewater should not be subject to Clean Air Act requirements, including Subpart Y, because it is too far away from shore contradicts Congress's determination.

Because the Oil Terminal is a new offshore loading terminal that has the potential to emit Hazardous Air Pollutants in excess of the 10/25 major source threshold, the Oil Terminal is unambiguously subject to the control requirement established by 40 C.F.R. § 53.562(b)(4).

B. EPA's reliance on a report in the administrative record to exempt Bluewater from Subpart Y requirements is misplaced and belies the agency's determinations in drafting Subpart Y and its more recent practice.

The unambiguous language of EPA's regulations dictate that Bluewater's Oil Terminal is an "offshore loading terminal" subject to Subpart Y pollution control requirements.[62]

Even if the rules' text could be contorted such that one could construe it as ambiguous, EPA's effort at interpretation in favor of Bluewater is unreasonable, arbitrary, and inconsistent.[63] The thrust of EPA's argument is that Subpart Y's drafters—EPA itself, circa the early-90s—could not possibly have had in mind the Oil Terminal, because loading would take place more than 12 nautical miles from shore (beyond territorial seas) and in greater than 75 feet of water.[64] But this argument makes no sense,

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[61] H.R. Rep. 104-692, 3.

[62] *Kisor*, 139 S.Ct., at 2414–15.

[63] *Kisor*, 139 S.Ct., 2416 ("Under *Auer*, as under *Chevron*, the agency's reading must fall within the bounds of reasonable interpretation. . . . And let there be no mistake: That is a requirement an agency can fail.") (internal citations omitted). The interpretation also would have to reflect the agency's substantive expertise, authoritative position, and fair and considered judgment. *Id*. at 139 S. Ct. 2400, 2416–18 (2019).

[64] *See, e.g.*, EPA, Statement of Basis for Notice of MACT Approval, p. 8 ("The two marine loading operations that were used to establish the MACT floor for new offshore major sources are located between 0.5 and 1.5 miles from the shore and not in federal waters exceeding 12 miles from shore and 75

because EPA recently applied Subpart Y to a project located more than 12 nautical miles from shore, and because the report in the administrative record on which the agency relies instead suggests that the Oil Terminal would be subject to the rule.

First, it contradicts EPA's correct decision in 2019 to apply Subpart Y to a materially identical VLCC loading project, the Sea Port Oil Terminal ("SPOT").[65] SPOT would be located 27-30 nautical miles from the Texas coast in the Gulf of Mexico, and in water depths of 115 feet.[66] SPOT also would have nearly twice the loading capacity as the Bluewater project.

Table 5: Comparison of Size and Maximum Emissions from Two Recently-Proposed Offshore Crude Oil Export Terminals

Terminal	Distance from Shore (Nautical Miles)	Capacity (bbl/yr)	Draft VOC Limit (TPY)	Draft Benzene Limit (TPY)
Bluewater	15	384,000,000	18,936	66
SPOT[67]	27-31	730,000,000	1,730	8.4

In its draft permits for SPOT, EPA specified that SPOT had received a vendor guarantee that vapor combustion units mounted on a nearby fixed platform would result in a 95 percent destruction removal efficiency of SPOT's HAPs, acknowledging the 95 percent reduction requirement.[68]

As EPA explained in its BACT decision for Bluewater, installing a platform and vapor combustion is technically feasible.[69] An engineering consultant for Bluewater

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feet in depth."). It is unclear why EPA picked a water depth of 75 feet as if it were a key threshold for regulation, other than that VLCCs require at least 75 feet of water to draft fully laden. *See id.* at 5.

[65] Exhibit 3, EPA, Draft PSD Air Permit for SPOT, p. 15 (Nov. 20, 2019).

[66] *See* Exhibit 4, Statement of Basis, Draft PSD and Title V permits for SPOT Terminal Services LLC, p. 1 (Nov. 8, 2019); Exhibit 3, EPA, Draft PSD Air Permit for SPOT, p. 15 (Nov. 20, 2019).

[67] All information aside from SPOT's benzene limit are taken from EPA, Statement of Basis, Permit Numbers: R6PSD-DWP-GM7 and R6T5-DWP-GM7. Benzene figures were taking from SPOT's Title V permit application.

[68] *See* Exhibit 4, Statement of Basis, Draft PSD and Title V permits for SPOT Terminal Services LLC, p. 14 (Nov. 8, 2019).

[69] EPA, Draft Statement of Basis for Bluewater PSD and Title V Permits, p. 13 (Nov. 9, 2020) ("EPA views this technology as technically feasible, given its successful demonstration at onshore marine loading

agreed.[70] It would be arbitrary and unreasonable to fail to require Bluewater to comply with Subpart Y, when it is legally required, and when EPA will insist on compliance by another nearly identical deepwater VLCC port.

Second, even if EPA had never issued draft permits to SPOT, the agency's argument would be unreasonable. In exempting Bluewater from Subpart Y, EPA primarily relies on a 1987 National Research Council ("NRC") report that Subpart Y's drafters reviewed for technical support in writing the regulation in the early-90s.[71] The NRC report focused on the cost and safety implications of installing vessel- or shore-based controls on terminals that happened to be closer to shore than Bluewater.[72] It also concluded that the costs of installing controls could vary with the location and design of the terminal.[73] Even though neither the rule nor its Federal Register preamble references this report,[74] EPA extrapolates that Subpart Y need not apply to any offshore facility aside from those highlighted in the NRC report.[75] But if anything, the opposite is true. Subpart Y's drafters considered the NRC report, but nevertheless decided against placing an upper-bound distance on Subpart Y's scope. EPA did this knowingly, acknowledging in its Notice of Proposed Rulemaking that "[s]ize constraints, permitting difficulties, and other concerns may be issues with an offshore control system," even as it proposed to create an "offshore loading terminal" subcategory of Subpart Y to regulate them.[76]

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facilities where vapors have been captured from offshore loading operations and routed back to shore for vapor combustion. In addition, we believe there are aspects of other marine oil transfer operations that are transferrable technology to BWTX's proposed oil loading terminal that would enable the successful employment of an offshore vapor combustion system to control VOC emissions.")

[70] Bluewater DWPA Appl. Vol. I, App'x Z, PSD Permit App., Document ID. MARAD-2019-0094-0004, at regulations.gov, https://beta.regulations.gov/document/MARAD-2019-0094-0004 (email from representative of John Zink Company stating that that while the Coast Guard first would need to grant safety approval, "[t]he end control device in such an instance, along with a vapor blower package suitable for transferring the vapors generated by such an operation, could be placed on an offshore platform or onshore depending on the economics of each scenario.")

[71] EPA, Statement of Basis for Notice of MACT Approval, pp. 5-7.

[72] *See* NRC, "Controlling Hydrocarbon Emissions from Tank Vessel Loading," p. vi (1987) (describing the authors' focus and methodology).

[73] NRC, "Controlling Hydrocarbon Emissions from Tank Vessel Loading," p. 142 (1987).

[74] *See* 40 C.F.R. §§ 62.560–68; EPA, "Federal Standards for Marine Tank Vessel Loading Operations and National Emission Standards for Hazardous Air Pollutants for Marine Tank Vessel Loading Operations," 60 Fed. Reg. 48388 (Sep. 19, 1995).

[75] EPA, Statement of Basis for Notice of MACT Approval, p. 6 (Nov. 9, 2020).

[76] 59 Fed. Reg. 25004, 25019 (May 13, 1994).

Subpart Y's drafters also did not rely exclusively on the NRC report, but solicited public comment on the costs associated with installing pollution controls at offshore facilities.[77] Similarly, EPA argues that drafters of Subpart Y might not have meant to regulate deepwater oil terminals like Bluewater's, because Congress did not lift the ban on oil exports until 2015.[78] But this ignores oil-*import* terminals fundamentally similar to Bluewater's export-driven design. In 1977, federal agencies granted a DWPA license to LOOP to offload oil from VLCCs.[79] Similar to Bluewater's proposal, LOOP consists of several single-point-mooring buoys, situated l8 nautical miles into the Gulf, in 110' waters.[80] Similar to Bluewater's plans, LOOP's buoys are connected to onshore oil storage that is 25 miles inland from the coast.[81] LOOP has been in continuous operation since it was commissioned in 1981.[82] The drafters of Subpart Y were likely well aware of existing deepwater terminals like LOOP when they created Subpart Y's "offshore loading terminal" subcategory to control pollution at potential, new deepwater

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[77] *See* 60 Fed. Reg. at 48393 ("The Agency requested information regarding the feasibility and costs of controlling emissions from offshore terminals. The Agency also requested comments on whether offshore terminals should be grouped into a separate subcategory and what the control status of terminals in such a subcategory should be.").

[78] *See* EPA, Statement of Basis for Notice of MACT Approval at pp. 4–6 (Nov. 9, 2020).

[79] Exhibit 5, La. DNR Presentation: "America's Energy Corridor: Louisiana Serving the Nation's Energy Needs," p. 8, http://www.dnr.louisiana.gov/assets/docs/energy/policypapers/AW_AmericasEnergyCorridor_Revised.pdf.

[80] Exhibit 5, La. DNR Presentation: "America's Energy Corridor: Louisiana Serving the Nation's Energy Needs," pp. 8–9, http://www.dnr.louisiana.gov/assets/docs/energy/policypapers/AW_AmericasEnergyCorridor_Revised.pdf.

[81] *See* Exhibit 5, La. DNR Presentation: "America's Energy Corridor: Louisiana Serving the Nation's Energy Needs," p. 9, http://www.dnr.louisiana.gov/assets/docs/energy/policypapers/AW_AmericasEnergyCorridor_Revised.pdf.

[82] *See* Exhibit 5, La. DNR Presentation: "America's Energy Corridor: Louisiana Serving the Nation's Energy Needs," pp. 8–9, http://www.dnr.louisiana.gov/assets/docs/energy/policypapers/AW_AmericasEnergyCorridor_Revised.pdf.

terminals like Bluewater's.[83] But they failed to exclude deepwater ports from the regulation.[84]

EPA's arguments to exempt Bluewater from Subpart Y contradict the clear regulatory text and ignore Congress's mandate that sources regulated under the DWPA should not be exempt from any otherwise applicable requirements under federal law. EPA did not implicitly (or explicitly) exclude deepwater ports, like Bluewater's Terminal, from regulation when it drafted Subpart Y. Thus, EPA is required to treat Bluewater as a "new major source offshore loading terminal," like SPOT, and to mandate compliance with Subpart Y. Because Subpart Y applies to the Oil Terminal, EPA cannot rely on Section 112(g) to establish a less stringent HAP control requirement.

IV. Even under a case-by-case MACT determination, EPA must require 95 percent reduction in HAPs, because it is achieved by the "Best Controlled Similar Source."

Even if Subpart Y did not unambiguously apply to this project, the 95 percent reduction requirement established by Subpart Y would still apply to Bluewater under the 112(g) case-by-case MACT standard, because at least one other similar terminal achieves this level of control. A case-by-case MACT emissions limitation "shall not be less stringent than the emission control which is achieved in practice by the best controlled similar source, as determined by the permitting authority."[85] A "similar source" is "a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed major source such that the source could be controlled using the same control technology."[86]

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[83] Even the NRC report on which EPA relies discusses VLCCs, *see* NRC, "Controlling Hydrocarbon Emissions from Tank Vessel Loading," pp. 44–45 (1987), and the fact that "[m]ost U.S. harbors are too shallow to admit large tankships." *Id.* at 15. The NRC report also contains drawings for shoreside vapor controls that could be linked by underwater pipeline to offshore terminals. *Id.* at 90. Even if the NRC Report did not focus its case studies on deepwater VLCC terminals, EPA should have been aware of the potential for these deepwater ports to exist.

[84] The agency again had an opportunity to clarify Subpart Y's scope in 2011, when it conducted a residual-risk and technology review. *See* 76 Fed. Reg. 22566 (Apr. 21, 2011). But the agency left this aspect of the rule intact. *Id.*

[85] 40 C.F.R. § 63.43(d)(1).

[86] 40 C.F.R. § 63.41; *see also* EPA, "Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources," 61 Fed. Reg. 68384-01, 68394–95 (Dec. 27, 1996) (interpreting this requirement to extend to transferring technology from similar sources even when there is no

In its statement of basis, EPA considered sources both within and outside of the United States to assess whether any with vapor collection or combustion were a "similar source."[87] EPA concluded that "there are no best controlled similar sources to the proposed" Oil Terminal[88] but highlighted one currently-operational offshore crude oil terminal that reduces its pollution by 95 percent: the Eilat Ashkelon Oil Port.[89] This terminal offloads oil from VLCCs at a single-point-mooring buoy two-miles into the Mediterranean from the Israeli coast.[90] The port routes vapors from crude unloading at the buoy through a pipeline to an onshore vapor combustion unit.[91] Despite the striking similarities with Bluewater's project, EPA improperly dismissed Eilat Ashkelon from consideration as a similar source, because of its closer distance to shore and slower loading rates, as well as the fact that "[w]ithout more information [on] the Ashkelon Oil Port, BWTX did not consider this facility a similar source."[92] EPA failed to explain why the port's distance from shore is material despite its determination that it would be technically feasible[93] for Bluewater to route vapors to platform-based control devices that would be less than 2 miles from the buoys.[94] Bluewater's failure to provide sufficient evidence to allow EPA to conclusively determine that the Eilat Ashkelon Port is a similar source for purposes of Bluewater's MACT analysis is not a reason for EPA to ignore it. It is Bluewater's burden to provide EPA with information necessary to demonstrate compliance with the Clean Air Act. Bluewater's failure to build an adequate record is not a good reason to hold Bluewater to a less-stringent standard. Instead, in light of the striking similarities between the two projects and in the absence of evidence establishing that known differences between the sources that would make it impossible for Bluewater to achieve the same level of control, EPA must conclude that Eilat Ashkelon Port is a similar source for purposes of its 112(g) review.[95] Indeed, if the Eilat Ashkelon Oil Port has installed vapor collection and combustion systems while

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demonstrated application of that technology among the particular type of source in question).

[87] EPA, Statement of Basis for Notice of MACT Approval, pp. 8–15 (Nov. 9, 2020).

[88] EPA, Statement of Basis for Notice of MACT Approval, p. 14 (Nov. 9, 2020).

[89] EPA, Statement of Basis for Notice of MACT Approval, p. 12 (Nov. 9, 2020).

[90] EPA, Statement of Basis for Notice of MACT Approval, p. 12 (Nov. 9, 2020).

[91] *Id.*

[92] EPA, Statement of Basis for Notice of MACT Approval, p. 12 (Nov. 9, 2020).

[93] EPA, Draft Statement of Basis for Bluewater PSD and Title V Permits, p. 13 (Nov. 9, 2020).

[94] *See* Attachment K to Exhibit 1, SPOT PSD Permit App., p. 8 (Jan. 28, 2019), (stating that SPOT's vapor recovery pipelines will be 0.66 nautical miles long to carry vapors from the single-point-mooring buoys to the platform's vapor combustion).

[95] *See* 40 C.F.R. § 63.43(d)(1).

handling *lower* throughput rates than Bluewater, as EPA suggests, it would strengthen the argument that these systems are cost-effective to install. The Eilat Ashkelon Port is the best controlled similar source to the Oil Terminal. Thus, Subpart Y and 112(g) both require Bluewater to comply with the 95 percent reduction in HAPs.

V. EPA must require a minimum 95 percent reduction in VOCs as BACT for Bluewater's Crude Loading Emissions.

Even if EPA's MACT determination is consistent with the law, the Draft Permits are still deficient. This is so because the Clean Air Act's best available control technology ("BACT") provision independently requires Bluewater to reduce VOC emissions by at least 95 percent. This level of VOC control would result in HAP reductions consistent with Subpart Y. Specifically, EPA's BACT analysis is deficient because it: (1) rejects vapor combustors as BACT based on unjustified cost effectiveness concerns; and (2) rejects vapor recovery technologies as BACT based on a flawed technical feasibility determination.

The attached report by Dr. Sahu (Exhibit 1) includes detailed grounds as to why EPA's BACT analysis is flawed, and is summarized below.

A. BACT requires EPA to assess all feasible control technologies and generally to require the feasible technology that most effectively destroys pollutants.

The Clean Air Act requires that a permit issued to a major new source of air pollution in an attainment area include emission limits that reflect the installation of BACT for each regulated air pollutant.[96] A permit cannot issue without proper BACT limits.[97] The Draft PSD Permit's emission limits do not satisfy BACT because they fail to require the maximum level of pollution reductions that are achievable.

The Clean Air Act defines BACT as an:

> emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority,

[96] 42 U.S.C. §§ 7471, 7475(a)(2), 7479(3).

[97] 42 U.S.C. § 7475(a)(4); *Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461 (2004) (upholding EPA's authority to block a PSD permit where the state permitting authority's BACT determination was unreasonable).

> on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.[98]

The BACT review "is one of the most critical elements of the PSD permitting process" because it determines the amount of pollution that a source will be allowed to emit over its lifetime.[99] As such, the BACT analysis must be "well documented" and a decision to reject a particular control option or a lower emission limit "must be adequately explained and justified."[100] While the applicant has the duty to supply a BACT analysis and supporting information in its application, "the ultimate BACT decision is made by the permit-issuing authority." *In re Genesee Power Station.*, PSD Appeal Nos. 93-1 through 93-7, 4 E.A.D. 832, 835 (EAB Oct. 22, 1993). Therefore, EPA has an independent responsibility to review and verify the applicant's BACT analyses and the information upon which those analyses are based to ensure that the limits in any permit reflect the maximum degree of reduction achievable for each regulated pollutant.[101] As demonstrated by Dr. Sahu,[102] EPA has not met its burden to show that the emission limits for VOCs from crude loading in the Draft Permits represent BACT.

BACT requires a case-by-case[103] analysis in order to determine the lowest emission rate for the pollutant in question for the source in question, reflecting the maximum degree of emissions reduction[104] that is achievable considering collateral factors such as cost, energy, and other environmental impacts. By using the terms "maximum" and "achievable," the Clean Air Act sets forth a "strong, normative" requirement that

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[98] 42 U.S.C. § 7479(3).

[99] *In re Mississippi Lime*, PSD Appeal No. 11-01, 15 E.A.D. 349, 361 (EAB 2011); *In re Knauf, GMBH*, PSD Appeal Nos. 98-3 through 98-20, 8 E.A.D. 121, 123-24 (EAB 1999).

[100] *In re Mississippi Lime*, 15 E.A.D. 361; *In re Knauf*, 8 E.A.D. 131.

[101] *See* 42 U.S.C. § 7479(3) ("permitting authority" makes BACT determination); 40 C.F.R. § 70.7(a)(5).

[102] Exhibit 1, Sahu Report.

[103] 42 U.S.C. § 7479(3); New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting, Draft, ("NSR Manual"), p. B-5, EPA's Office of Air Quality Planning and Standards (Oct. 1990), https://www.epa.gov/sites/production/files/2015-07/documents/1990wman.pdf.

[104] NSR Manual, pp. B.1-B.2, B.23.

"constrain[s]" agency discretion in determining BACT.[105] Pursuant to those requirements, "the most stringent technology is BACT" unless the applicant or agency can show that such technology is not feasible or should be rejected due to costs or specific collateral impact concerns.[106] If the agency proposes permit limits that are less stringent than those for recently permitted similar facilities, the burden is on the applicant and agency to explain and justify why those more stringent limits were rejected.[107]

BACT's focus on the maximum emission reduction achievable makes the standard both technology-driven and technology-forcing.[108] A proper BACT limit must account for both general improvements within the pollution control technology industry and the specific applications of advanced technology to individual sources, ensuring that limits are increasingly more stringent. BACT may not be based solely on prior permits, or even emission rates that other plants have achieved, but must be calculated based on what available control options and technologies can achieve for the project at issue and set standards accordingly.[109] Thus, the agency cannot reject the use of a certain technology based on the lack of testing data for that technology, where the record otherwise establishes that the technology is appropriate as an engineering matter.[110]

The EPA established a top-down approach for making BACT determinations to ensure that BACT determinations are "reasonably moored" to the Clean Air Act's statutory requirement that BACT represent the maximum achievable reduction.[111]

In a top-down analysis, the first step is to *identify all potential available control*

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[105] *Alaska,* 540 U.S. at 485-86.

[106] *Alaska Dep't of Envtl. Conserv. v. EPA*, 298 F.3d 814, 822 (9th Cir. 2002).

[107] *In re Indeck-Elwood, LLC*, PSD Appeal No. 03-04, 13 E.A.D. 184–190 (EAB 2006); *In re Knauf Fiber Glass*, 8 E.A.D. 121, 131–32.

[108] *See* NSR Manual, pp. B.12, B.5, B.16.

[109] *See In re Newmont Nevada Energy Invest., LLC*, PSD Appeal No. 05-04, 12 E.A.D. 429, 443 (EAB 2005), (While a state agency may reject a lower limit based on data showing the project does not have "the ability to consistently achieve" the limit, it may only do so based on a detailed record establishing an adequate rationale); *see id.* (The word "achievable" does not allow a state agency to only look at past performance at other facilities, but "mandates a forward-looking analysis of what the facility [under review] can achieve in the future.")

[110] *See id.*; NSR Manual, at B.5.

[111] *Alaska,* 540 U.S. at 461, 485, 488–89.

technologies for the unit.[112] This includes all technologies or techniques with "practical potential for applications." These technologies should not be limited to those used within the United States.[113]

The second step is to *eliminate technically infeasible options*. Technical infeasibility should be "clearly documented" to show that the control technology would not be successful, due to difficulties based on physical, chemical, and engineering principles.

In the third step, the applicant *ranks the remaining control technologies by control effectiveness* for each pollutant and for each unit subject to BACT analysis. Here, the list should present information on the 1) control efficiencies; 2) expected emission rate; 3) expected emission reduction; 4) environmental impacts; 5) energy impacts; and 6) economic impacts.

Finally, the applicant *evaluates the most effective controls and document results* and selects the most effective control measure not eliminated. Measures can only be eliminated at this step based on well-documented energy, environmental, or economic impacts.

B. EPA erroneously rejected Vapor Combustion as BACT

Vapor combustion units are a type of pollution control technology that destroy VOCs by heating the emissions stream to very high temperatures using an enclosed flame.[114] They have been demonstrated to "successfully and reliably achieve from 95% to 99% Destruction Removal Efficiency" of VOCs at onshore facilities.[115] EPA correctly determines that vapor combustion is a technically feasible pollution control option for Bluewater, evaluating the technology in Steps 3 and 4 of the BACT analysis.[116] At Step 3, EPA concludes that vapor combustion is the most effective, feasible control technology at eliminating VOC emissions, by a wide margin.[117] But EPA then incorrectly eliminates vapor combustion at Step 4 based on a flawed and unsupported costs analysis.

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[112] NSR Manual, p. B-5.

[113] NSR Manual, p. B-11.

[114] EPA, Draft Statement of Basis for PSD and Title V Permits, p. 8.

[115] *Id.*

[116] *See* EPA, Draft Statement of Basis for PSD and Title V Permits, p. 13.

[117] *Id.* at p. 15 (reviewing only one other alternative, submerged fill loading, which has just a 60 percent control efficiency).

i. EPA significantly overestimated the cost per ton of vapor combustion, therefore its rejection of this technology based on costs is invalid

EPA concluded that the cost per ton of VOC removed from vapor combustion would be $14,444 based on unquestioned and over-inflated cost and emissions assumptions provided by the applicant. EPA's cost analysis thus significantly overestimates the cost per ton of VOCs removed from vapor combustion. As explained more extensively in Dr. Sahu's report, these erroneous cost and emissions assumptions include:

1. Capital Cost of Vapor Combustors[118]
2. Utilities[119]
3. Cost of Platform[120]
4. Indirect Costs[121]
5. Operation Expenses related to Platform and Vapor Recovery System[122]
6. Maintenance[123]
7. Estimated uncontrolled VOC Emissions[124]
8. VCU Control Efficiency[125]

Using Dr. Sahu's revised assumptions adjusted for only two of these inputs (capital cost of vapor combustors and utilities), the cost per ton of VOC removed for vapor combustion falls substantially to $8,163.[126] As Dr. Sahu explains, even this revised cost is inflated due to other assumptions that had no basis in the record.[127]

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[118] Exhibit 1, Sahu Report, at pp. 18-20.

[119] *Id.* at p. 21.

[120] *Id.* at p. 22.

[121] *Id.* at pp. 22-23.

[122] *Id.* at pp. 23-24.

[123] *Id.* at pp. 24-25.

[124] *Id.* at pp. 25-26.

[125] *Id.* at p. 26.

[126] *Id.* at p. 21; *see* Attachment L to Sahu Report (Sahu Spreadsheet).

[127] Exhibit 1, Sahu Report, at p. 22.

Moreover, EPA's cost assumption of $14,444 per ton for vapor combustion for Bluewater is over *26 times higher* than the cost effectiveness values of $553 per ton submitted to EPA for the *same* control technology for the proposed SPOT offshore terminal.[128] This significantly lower cost effectiveness value from another similar proposed offshore terminal further demonstrates that the Bluewater assumptions are inflated and should have been scrutinized by EPA.

Dr. Sahu's cost of $8,163 (or lower) is well below the upper limit ranges for cost effectiveness for VOCs and other ozone precursors based on several examples of permitting and cost effectiveness thresholds cited by Dr. Sahu. First, in a recent hearing on a TCEQ air permit for an LNG export terminal near Brownsville, Texas, a representative for the permit applicant testified that TCEQ does not have a "bright line value" for BACT, but for a permit application from 2016, the range for the ozone precursor NO_x was "10- to 15,000 per ton" and that the value "gradually goes up over time."[129] Second, Louisiana permitting decisions deemed controls for ozone precursors as cost effective at $13,047 to $16,933 per ton and $17,864 per ton, respectively (adjusted for inflation by Dr. Sahu to 2020 values).[130] Third, thresholds for VOCs and NOx controls deemed by EPA to be presumptively cost-effective for BACT at refineries nationwide at $14,630 per ton (adjusted for inflation by Dr. Sahu to 2020 values).[131] Fourth, cost effectiveness thresholds set for VOCs and NOx by the Massachusetts Department of Environmental Protection range from $20,350 - $24,050 per ton (adjusted for inflation by Dr. Sahu to 2020 values).[132]

Thus, EPA erroneously rejected vapor combustion as BACT based on costs.

ii. Even using EPA's own figures, vapor combustion is "cost effective" and must be BACT.

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[128] Exhibit 1, Sahu Report, at pp. 15-17.

[129] Attachment E to Sahu Report, Texas LNG Brownsville, LLC: Contested Case Hearing Before the State Office of Administrative Hearings, Final Transcript Vol. II, pp. 344:12-345:7 (2019) (Statement of Donald Bradley).

[130] Exhibit 1, Sahu Report, at pp. 8-9; *see id.* at pp. 6-8 (Section 2.1 Adjusting Cost-Effectiveness for Inflation); *see* Attachments F & G to Sahu Report. (Marathon Petroleum refinery and ExxonMobil Baton Rouge refinery).

[131] Exhibit 1, Sahu Report, at p. 9; *see id.* at pp. 6-8 (Section 2.1 Adjusting Cost-Effectiveness for Inflation); *see* Attachment I to Sahu Report (EPA Seitz Letter to Division Directors).

[132] Exhibit 1, Sahu Report, at p. 9; *see id.* at pp. 6-8 (Section 2.1 Adjusting Cost-Effectiveness for Inflation); *see* Attachment J to Sahu Report (MassDEP BACT Guidance).

Before rejecting the most effective pollution control option in a BACT analysis due to cost, a permitting agency must determine that the cost-per-ton of emissions reduced is beyond "the cost borne by other sources of the same type in applying that control alternative."[133] Moreover, the decision to reject a particular control option or a lower emission limit "must be adequately explained and justified."[134]

EPA estimates that vapor combustion would cost around $14,444 per ton of VOC removed.[135] Then, without support, it concludes: "EPA nonetheless views this cost value as excessive in comparison with **most** upper bound cost effectiveness levels," and "**may** in fact be unreasonable."[136] EPA does not explain the basis for these conclusions. Specifically, it fails to provide criteria for determining what it considers the "upper-bound" or "unreasonable" cost-effectiveness thresholds applied in BACT review. EPA's lack of justification for eliminating vapor combustion as BACT renders its BACT determination insufficient.[137]

Even presuming EPA's cost of $14,444 per ton of VOC removed for vapor combustion were accurate,[138] this cost falls within or below the range of BACT cost effectiveness for VOCs and other ozone precursors used by TCEQ, EPA, and other air permitting jurisdictions in permitting determinations and cost thresholds discussed above,[139] and thus must be considered BACT.[140]

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[133] NSR Manual at B.44; *see also id.* at B.45 ("[T]he applicant should document that the cost to the applicant of the control alternative is **significantly beyond the range of recent costs** normally associated with BACT for the type of facility (or BACT control costs in general) for the pollutant.") (emphasis added); *see also Steel Dynamics, Inc*., PSD Appeal Nos. 99-4 & 9905, 9 E.A.D. 165, 202 (EAB 2000); *In re Inter-Power of New York Inc.*, PSD Appeal Nos. 92-8 and 92-9, 5 E.A.D. 135, (EAB Mar. 16, 1994).

[134] *In re Mississippi Lime*, 15 E.A.D. 361; *In re Knauf*., 8 E.A.D. 131.

[135] EPA, Draft Statement of Basis for PSD and Title V Permits, p. 17.

[136] EPA, Draft Statement of Basis for PSD and Title V Permits, p. 17 (emphasis added).

[137] NSR Manual, p. B.8 ("In the event that the top candidate is shown to be inappropriate, due to energy, environmental or economic impacts, the rationale for this finding needs to be fully documented in the public record."); *see Steel Dynamics, Inc*., 9 E.A.D. 165, 202 (remanding PSD permit decision because BACT cost-effectiveness analysis was incomplete and unjustified); *In re Knauf Fiber Glass,* 8 E.A.D. 121, at *8 ("A permitting authority's decision to eliminate potential control options due to collateral impacts [] must be adequately explained and justified.").

[138] *See* Section V. B and C. above.

[139] Exhibit 1, Sahu Report, at pp. 8-9; Section V. B and C. above.

[140] *See, e.g.*, NSR Manual at B.44, B.45.

C. EPA erroneously rejected Vapor Recovery as BACT

Vapor recovery technologies are non-destructive systems that recover pollutants such as VOCs from an emissions stream, and in some cases reduce the amount of marketable crude oil lost in loading.[141] EPA appears to eliminate these technologies at Step 2 of BACT, concluding that vapor recovery technologies, including refrigeration technology, adsorption technology, and vapor balancing, "may not be applicable to" Bluewater.[142] This decision is flawed, and EPA must review vapor recovery systems in Steps 3 and 4, because they are feasible control options.

EPA itself admits that vapor recovery with refrigeration may be feasible, but then inexplicably fails to assess the technology further. EPA concludes at Step 2: "EPA is therefore **not** eliminating refrigeration technology as an applicable or technically feasible technology when considered for an offshore platform operation."[143] Yet, despite this determination **not** to eliminate this type of vapor recovery as technically infeasible, EPA does not consider vapor recovery in the next step of its BACT analysis and provides no explanation for the omission.[144] Thus, EPA's BACT analysis is deficient on its face because it fails to consider all technically feasible control alternatives identified from Step 2 in the subsequent steps.[145]

Moreover, for vapor recovery technology, EPA again takes a position for Bluewater that is contrary to the record for the SPOT offshore terminal. For SPOT, vapor recovery technology was deemed technically feasible in the BACT analysis and cost effective at $916 per ton of VOC removed (but was ultimately not chosen as BACT because it was more costly than vapor combustion).[146]

Dr. Sahu opines that various vapor recovery technologies – including land-based adsorbers, platform based adsorbers, vapor balancing, and refrigeration technology – are technically feasible and thus should not have been eliminated as technically infeasible at Step 2 by EPA.[147]

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[141] *See* EPA, Draft Statement of Basis for PSD and Title V Permits, pp. 7-9.

[142] *See* EPA, Draft Statement of Basis for PSD and Title V Permits, p. 9.

[143] *See* EPA, Draft Statement of Basis for PSD and Title V Permits, p. 10 (emphasis added).

[144] *See id.* at 15.

[145] NSR Manual at B. 22.

[146] Exhibit 1, Sahu Report, at pp. 19, 26; *see* Attachment K to Sahu Report (SPOT Application).

[147] Exhibit 1, Sahu Report, at p. 26.

VI. EPA's approval of the Draft Permits would violate the Midway Facility's Texas standard air permit.

EPA's approval of the Draft PSD Permit is foreclosed by the terms of the Texas non-rule standard permit that Phillips 66—Bluewater's co-owner—registered to authorize the onshore component of the Bluewater project. As explained in the Background Section above, Bluewater's proposed Oil Terminal will consist of three interdependent sources that Bluewater's proponents chose to permit independently. The project's "inshore" components will consist of a control center located on Harbor Island. The project's "onshore" components include Phillips 66's construction and operation of the Midway Facility, which is a petroleum storage terminal and pipeline hub. The "offshore" component consists of the Oil Buoys.[148]

The Midway Facility is authorized by Texas's non-rule standard permit for oil and gas sources ("Standard Permit").[149] The Standard Permit allowed Phillips 66 to obtain rapid preconstruction approval of the Midway Facility, without public notice and opportunity to comment, but it also came with restrictions. Namely, the conditions for this Standard Permit provide that it "may not be used if operationally dependent facilities are authorized by … a permit under 30 TAC § 116.111, General Application."[150] Section 116.111 permits are source-specific authorizations available to major and minor sources in Texas. The PSD permit EPA proposes to issue for the Oil Buoys is a major-source preconstruction permit under Section 116.111, because the DWPA directs EPA to apply Texas state law requirements.[151] The Standard Permit's terms preclude issuance of the Draft PSD Permit to authorize construction of the Oil Buoys, because they are operationally dependent upon the Midway Facility authorized by the Standard Permit. The Oil Buoys cannot accomplish their primary purpose—the loading of crude oil onto marine vessels—unless they receive crude oil from the Midway Terminal. Accordingly, EPA may not finalize the Draft PSD Permit unless and until Bluewater obtains a

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[148] Bluewater EPA Statement of Basis, PSD-TV Permit, p. 3.

[149] *Id*. Exhibit 2, Standard Permit Registration No. 158065. While this permit's terms indicate that it only applies to projects in the Barnett Shale area, the TCEQ allows "projects located outside the Barnett Shale Counties which are constructed or modified on or after April 1, 2011 … [to] voluntarily register under the" non-rule Standard Permit. TCEQ webpage for Air Quality Standard Permit for Oil and Gas Handling and Production Facilities: https://www.tceq.texas.gov/permitting/air/newsourcereview/chemical/oil_and_gas_sp.html.

[150] TCEQ, Air Quality Standard Permit for Oil and Gas Handling and Production Facilities at Condition (a)(2), https://www.tceq.texas.gov/assets/public/permitting/air/Announcements/oilgas-sp.pdf.

[151] 33 U.S.C. § 1518(b).

different authorization for its Midway Terminal.

VII. The Draft Title V Permit fails to assure compliance with applicable VOC emission limits.

Each Title V permit must include conditions necessary to assure compliance with federally-enforceable emission limitations and other applicable Clean Air Act requirements.[152] The Act requires Title V permits to specify "procedures and methods for determining compliance and for monitoring and analysis of pollutants regulated under . . . [the Act] . . . that provide sufficiently reliable and timely information for determining compliance."[153] The Draft Title V Permit is deficient, because it fails to specify monitoring, testing, and recordkeeping that provide a reliable basis for determining compliance with applicable hourly and annual VOC emission limits that apply to marine loading from the Oil Buoys. Specifically, the Draft Title V Permit incorporates by reference emission limitations, including VOC emission limitations, listed on Table 1 of the Draft PSD Permit.[154] To determine compliance with the VOC emission limitations established by Table 1 of the Draft PSD Permit, the Draft Title V Permit directs that "[e]missions shall be calculated using the calculation procedures contained in EPA's AP-42: Compilation of Air Emission Factors, Section 5.2, Transportation and Marketing of Petroleum Liquids (December 4, 2008)."[155]

This method of calculating loading loss emissions fails to assure compliance with applicable VOC emission limitations, because the relevant, AP-42 equation has a built-in probable error rate of 30 percent.[156] An emission calculation based on an equation with a built in error rate of 30 percent is not a reliable indicator of compliance. This error rate is of particular concern with respect to hourly VOC emissions established by the Draft PSD Permit. Even if Bluewater does not approach the maximum annual throughput authorized by the Draft PSD Permit, it plans to operate at or near its maximum hourly throughput limits when loading VLCCs.[157] Because hourly VOC

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[152] 42 U.S.C. § 7661c(a).

[153] *Id*. at § 7661c(c).

[154] Draft Title V Permit at Condition III.B.5.

[155] *Id*. at Condition III.B.3.

[156] AP-42, Section 5.2 at 4 ("Emissions from loading petroleum liquid can be estimated (with a probable +/- 30 percent) using the following expression[.]"); Bluewater PSD Application, pp. 3-4 (indicating that loading losses were calculated using AP-42, Section 5.2, Equation (1)).

[157] Bluewater's PSD Application indicates that VLCC tankers typically hold approximately 2,000,000 barrels of crude oil. PSD Application at Table 2-1. The Draft PSD Permit limits the maximum loading rate

emission limitations established in the Draft PSD Permit and incorporated into the Draft Title V Permit reflect emissions calculated using AP-42, Section 5.2, Equation (1) at the maximum authorized pumping rate, and emissions calculated using Equation (1) have a probable error rate of 30 percent, repeated violations of the hourly emissions limit are almost certain to occur over the course of a year and would go undetected using the compliance method established by the Draft Title V Permit. Accordingly, the Draft Title V Permit is deficient. To comply with Title V requirements, EPA must revise the Draft Title V Permit to establish monitoring, testing, and recordkeeping requirements that accurately determine VOC emissions from loading losses at Bluewater's Oil Terminal.

VIII. EPA must identify the environmental justice communities impacted by this Project and examine the impacts caused by the approval of the Permits in these communities.

Executive Order 12898 requires each federal agency to "make achieving environmental justice part of its mission by identifying and addressing . . . disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."[158] Accordingly, EPA is obligated to consider the impacts of this proposed project on low-income and minority populations ("environmental justice populations" or "EJ populations"). This is especially crucial with respect to this project given the historical context, demographics, and cumulative impacts felt daily by residents and workers in the surrounding communities. Based on this executive order, the EPA's Environmental Appeals Board has held that EPA must complete an environmental justice analysis prior to issuing federal PSD permits.[159]

A. EPA arbitrarily defined impacted environmental justice communities.

In its brief Environmental Justice section, EPA acknowledges that it is required to consider environmental justice issues, and then, based solely on unexplained tables in

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at Bluewater's Oil Terminal to 80,000 bbl/hr. Draft PSD Permit at Condition IV.A.2. EPA's NOMA Statement of Basis indicates that the maximum loading time for a vessel at the Oil Terminal is 25 hours. EPA, NOMA SOB at 1. In order for the Oil Terminal to load a VLCC that has a capacity of 2,000,000 barrels within 25 hours, the Oil Terminal would need to maintain the maximum authorized pumping rate for the full 25 hours (25*80,000=2,000,000).

[158] Exec. Order 12898, 59 Fed. Reg. 7629 (Feb. 11, 1994).

[159] *See, e.g.*, *In re Prairie State Generating Company*, 13 E.A.D. 1, 123 (EAB 2006); *In re Knauf*, 8 E.A.D., at 174-75.

an appendix applying an arbitrary radius around the Oil Buoys, concludes that "environmental justice concerns are unlikely to be raised in connection with the permitting" of Bluewater.[160]

This environmental justice analysis is wholly inadequate and flawed for several reasons. First, EPA offers no basis for the radius it drew around the offshore Oil Buoys to delimit its "study area."[161] EPA did not apparently tie this radius to locations that increased concentrations of pollution from the Oil Buoys could actually reach.[162] Bluewater's emissions would be massive and prevailing winds would tend to blow pollution towards the shore.[163] It is not appropriate to assume, as EPA has, that only areas within a given mileage radius will receive impacts. As a result, EPA's methodology is arbitrary and its study area likely leaves out environmental justice populations with greater exposure or greater susceptibility to harm from exposure.[164] In conducting the more refined review required, EPA must take account of the fact that pollutant concentrations below the national ambient air quality standards ("NAAQS") can still cause harmful impacts and these risks may be amplified in EJ populations.[165] EPA needs to set a radius based on the reach of potentially harmful increases in concentrations of VOCs, ozone, and the HAPs emitted by the project.

Second, even within the impact area, EPA arbitrarily left out EJ populations. Notably, EPA fails to identify or include any information about potential impacts to indigenous or tribal communities from the project's air emissions. The Texas Gulf Coast, including the region impacted by this project, has been home to many indigenous

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[160] *See* Bluewater EPA Statement of Basis, PSD-TV Permit, pp. 27-28, Appendix p. 33-35.

[161] *Id*.

[162] EPA, *Promising Practices for EJ Methodologies in NEPA Reviews: Report of the Federal Interagency Working Group on Environmental Justice & NEPA Committee* at 15 (2016) ("EJ-IWG Guidance"); EPA, *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* § 1.2 ("EPA Guidance") ("The effects of the proposed action will often vary depending on the distance of the affected community from the action and the type of effect created by the action."); *Cmtys. Against Runway Expansion, Inc. v. FAA*, 355 F.3d 678, 685, 689 (D.C. Cir. 2004) (affirming the agency's "reasonable and adequately explained" EJ methodology in a NEPA case for its choice of affected and comparison populations based on the distance of noise impacts).

[163] *See* Section II – Background on Pollutants above.

[164] *See* EJ-IWG Guidance at 9; EPA Guidance §§ 2.1, 2.2; *see also Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs*, 255 F. Supp. 3d 101, 137-40 (D.D.C. 2017).

[165] *Friends of Buckingham v. State Air Pollution Control Bd*., 947 F.3d 68, 86, 92 (4th Cir. 2020) (finding the Board's state law EJ analysis incomplete when it failed to consider "the potential degree of injury to the local population independent of NAAQS").

people for thousands of years. The bones and artifacts of hundreds of indigenous people, some dating back thousands of years, have been found at what some consider to be one of the most important cemetery sites in the state, the Cayo del Oso site (41NU2) in neighboring Nueces County.[166] In addition to the long indigenous history of the region, indigenous people still live close to the proposed onshore and offshore components of the project, accounting for at least one percent of the population within five miles of Harbor Island.[167] The proximity of this project to these communities is concerning, as indigenous children are 60 percent more likely to have asthma as non-Hispanic white children.[168] Increased air pollutants, such as those permitted by this project, could increase the incidence of asthma as well as exacerbate the effects of those already experiencing asthma within the impacted area.

EPA likewise failed to assess whether minority or low-income workers in the region's fishing, tourism, or energy industries could be disproportionately impacted by the exposure to the project's emissions where they regularly travel for work. The analysis did not assess whether recreational and subsistence fishers who spend large amounts of time on or near the coast could be impacted. The neighboring counties that likely contribute the bulk of the area's workforce and many of its recreational and subsistence fishers are Aransas, Nueces, and San Patricio.[169] Environmental justice communities and other vulnerable populations make up an outsized share of these counties, and those populations could be disproportionately impacted by the project.[170] In particular, census data indicates that Nueces County has a 67.1 percent minority population and San Patricio County is 65 percent minority. Additionally, each county (Aransas (19.9%), Nueces (16.2%), and San Patricio (17.3%)) contains a significant

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[166] *See* A.T. Jackson, *The Cayo del Oso Site (41NU2) Volume I A Historical Summary of Explorations of a Prehistoric Cemetery on the Coast of False Oso Bay, Nueces County, Texas*, 2004 INDEX OF TEXAS ARCHAEOLOGY: OPEN ACCESS GRAY LITERATURE FROM THE LONE STAR STATE Art. 10. https://doi.org/10.21112/ita.2004.1.10.

[167] Demographic information of residents within a 5-mile radius of Harbor Island, Texas, was obtained through the EPA's EJSCREEN mapping tool, https://ejscreen.epa.gov/mapper/.

[168] Asthma and American Indians/Alaska Natives, U.S. DEP'T. OF HEALTH AND HUMAN SERV., OFF. OF MINORITY HEALTH, (last visited Dec. 30, 2020), https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=30.

[169] *See* DEEPWATER PORT LICENSE APPLICATION: BLUEWATER TEXAS TERMINAL LLC; PROJECT SCOPE CHANGES; REQUEST FOR COMMENTS, 85 FED. REG. 48070 (Aug. 7, 2020).

[170] Quick Facts, U.S. CENSUS BUREAU, (last visited Sep. 4, 2020), https://www.census.gov/quickfacts/fact/table/aransascountytexas,sanpatriciocountytexas,nuecescountytexas/PST045219.

number of people living in poverty.[171]

The coastal communities of Aransas Pass, Port Aransas, and Corpus Christi have an important connection to fishing-related activities, which represent a major component of the local culture and economy.[172] In addition to seafood being a chief part of the local diet, the Texas Department of State Health Services (DSHS) assumes that at least 10% of licensed fishers are subsistence fishers and consume more locally caught fish than the general population.[173] As such, water quality impacts due to atmospheric deposition of air pollutants from emissions of surrounding industry is a significant consideration to the health and well-being of these communities. In fact, a U.S. EPA report to Congress in 2000 indicated that "[a]t current levels of contamination, pollutants of concern in the Great Waters [which include waters in the Coastal Bend area] pose potentially the greatest health risks to individuals who consume fish from contaminated waters for subsistence or cultural reasons, women of child-bearing age, the developing fetuses of pregnant women, and young children who consume fish from contaminated waters."

Finally, EPA's analysis fails to include any evaluation of the environmental justice communities that might be impacted by the unprecedented air emissions from this project when added to the cumulative and connected impacts from its onshore components like the Midway Facility, Harbor Island Facility, and pipelines. EPA must explore how many of the same communities that could be impacted by the Oil Buoys may also suffer from the onshore air pollution from the Oil Terminal and from other new and existing sources of pollution in the Coastal Bend.

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[171] *Id.*

[172] National Marine Fisheries Service, *Community Snapshots - Aransas Pass*, SNAPSHOTS OF HUMAN COMMUNITIES AND FISHERIES IN THE GULF OF MEXICO AND SOUTH ATLANTIC (2012), https://fish.nefsc.noaa.gov/read/socialsci/sero/createReport.php?state=TX&community=Aransas+Pass; NOAA Fisheries, *Community Snapshots - Port Aransas*, SNAPSHOTS OF HUMAN COMMUNITIES AND FISHERIES IN THE GULF OF MEXICO AND SOUTH ATLANTIC (2012), https://fish.nefsc.noaa.gov/read/socialsci/sero/createReport.php?state=TX&community=Port+Aransas; NOAA Fisheries, *Community Snapshots - Corpus Christi*, SNAPSHOTS OF HUMAN COMMUNITIES AND FISHERIES IN THE GULF OF MEXICO AND SOUTH ATLANTIC (2012), https://fish.nefsc.noaa.gov/read/socialsci/sero/createReport.php?state=TX&community=Corpus+Christi; NOAA, *Identifying communities associated with the fishing industry in Texas* (2005), https://repository.library.noaa.gov/view/noaa/19462.

[173] *Characterization of Potential Adverse Health Effects Associated with Consuming Fish from Galveston Bay*, DEP'T. OF STATE HEALTH SERV., DIV. OF REGUL. SERV., (last visited Dec 16, 2020) https://dshs.texas.gov/seafood/GalvestonBay-RC-2010.pdf.

EPA must revise its EJ analysis to draw a study area that actually reflects the scope of the harmful pollution from the Oil Terminal, as well as the various ways that EJ communities live, work, and utilize the area's natural resources.

B. EPA must ensure that it engages in adequate outreach to environmental justice communities.

EPA guidance directs agencies to assure meaningful community participation throughout the permitting process, as "these permits play a key role in providing effective protection of public health and the environment in communities."[174] The EPA Region 6 Regional Implementation Plan directs EPA to prioritize enhanced public involvement opportunities for EPA-issued permits that may involve activities with significant public health or environmental impacts on overburdened communities, including PSD permits.[175] Here, there is no evidence that EPA attempted to solicit input from environmental justice communities at all. Rather, the agency did the opposite; it arbitrarily drew the impacts radius and thus excluded environmental justice communities from consideration.

By failing to identify the Draft Permits as having potentially significant impacts to environmental justice communities, the impacted communities have been denied opportunities to engage in the permitting process for a project that will have detrimental impacts to the air quality in their communities. The guidance recommends enhanced community engagement and communication, including holding public meetings at times and places in the community best designed to afford the public a meaningful chance to attend. For this project, however, EPA required pre-registration to both attend and speak at the public hearing, then closed registration 19 days prior to the hearing, preventing many community members from participating. After push back from many groups,[176] on December 29, EPA opened a shorter, four-hour session scheduled for January 6, 2021, with same-day registration to allow for further oral comments. However, this does not guarantee those interested an opportunity to be

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[174] Plan EJ 2014: Overview, U.S. ENVTL. PROT. AGENCY (Sep. 2011), https://www.epa.gov/sites/production/files/2015-02/documents/plan-ej-overview.pdf.

[175] EPA Region 6 Regional Implementation Plan To Promote Meaningful Engagement of Overburdened Communities in Permitting Activities, U.S. ENVTL. PROT. AGENCY (May 1, 2013), https://www.epa.gov/sites/production/files/2015-08/documents/r6_rip_ej_permitting07022013.pdf.

[176] Ltr. from Earthjustice to Jonathan Ehrhart, EPA Region 6, re: Public Hearing, Bluewater Texas Terminal LLC. (Dec. 22, 2020).

heard.

C. EPA must evaluate the cumulative impacts of the region's rapid industrial expansion on environmental justice communities.

After decades of environmental injustices in the Northside neighborhoods along Corpus Christi's refinery row,[177] an extraordinary level of heavy industry development is now encroaching on Aransas Pass, Ingleside, Ingleside on the Bay, Gregory, Taft, Portland, Port Aransas, and the surrounding communities. For example, in addition to Bluewater, other similarly proposed energy infrastructure projects in this area include: the Axis Midstream Holdings, LLC project (USACE Application No. SWG-2018-00789), MODA Midstream Expansion project (USACE Application No. SWG-1995-02221), the Port of Corpus Christi Deepening Project (USACE Application No. SWG-2019-00067), and the Harbor Island Desalination Plant (TCEQ Permit No. WQ0005253000). Several new industrial facilities are imminently slated for construction in the area. In Portland, Exxon Mobil and Saudi Arabia-based Sabic are in the process of building a multi-billion-dollar chemical plant.[178] Nearby, Cheniere Energy is expanding its liquefied natural gas facilities to increase production and exports.[179] Regional plans show additional forthcoming development.[180]

Coastal communities near Corpus Christi are already overburdened by health risks associated with oil and gas development in the area. For example, the Port of Corpus Christi boasts six oil refineries and a recent study has shown that proximity to oil refineries in Texas, including in Corpus Christi, is associated with an increased risk of cancer (for several cancer types).[181] The authors indicate that this observed association is

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[177] *See e.g.* Michael Laris, *In the shadows of Refinery Row, a parable of redevelopment and race*, WASH. POST (Oct. 2017), https://www.washingtonpost.com/sf/local/2017/10/21/in-the-shadows-of-refinery-row-a-parable-of-redevelopment-and-race/; Amal Ahmed, *A New Study Finds a Link Between Flaring and an Increase in Premature Births*, TEX. OBSERVER (Aug. 18, 2020), https://www.texasobserver.org/a-new-study-finds-a-link-between-flaring-and-an-increase-in-premature-births/.

[178] *See* Chris Ramirez, *No permit? No Problem. Work is underway at Exxon/SABIC's proposed plant site in Gregory*, CALLER TIMES (Dec. 8, 2018), https://www.caller.com/story/money/business/local/2018/12/04/work-underway-exxonmobil-proposed-gulf-coast-growth-ventures-plant-site-ahead-permit-approval/1599908002/.

[179] *Corpus Christi Liquefaction Stage III, LLC et al.*, 169 FERC ¶ 61,135 at P 1 (Nov. 22, 2019).

[180] *See* Exhibit 6, Corpus Christi Regional Economic Development Corporation Presentation, p. 4.

[181] Jill Ament & Caroline Covington, *Study Shows Correlation Between Proximity to Oil Refineries and Cancer Risk. But More Research is Needed.*, TEXAS STANDARD (Dec. 3, 2020),

likely due to the emissions of hazardous air pollutants that are known to be volatile, such as benzene, toluene, ethylbenzene, and xylene compounds (together known as BTEX).[182] Accounting for confounding factors, populations living within 0-10 miles and 11-20 miles of an oil refinery were at the highest risk of developing cancer.[183] The proposed Bluewater oil export terminal planned to be built approximately 17 miles offshore, is expected to emit nearly 19,000 tons per year of VOCs, of which "[p]otential emission rates of HAP exceed 10 tpy for n-Hexane, Benzene, Toluene, m-Xylene, p-Xylene, and Xylene (all isomers). Potential emission rates of combined HAP exceed 25 tpy."

These projects, combined with the instant project, represent cumulative threats to the health, safety, and wellbeing of environmental justice communities. However, EPA's environmental justice analysis fails to evaluate impacts from Bluewater *in light of* impacts from these many planned but not yet operating industrial emissions sources on environmental justice communities.

IX. Conclusion

EPA may not finalize the Draft Permits authorizing construction and operation of Bluewater's uncontrolled, super-emitting Oil Terminal. As we have demonstrated, the Draft Permits fail to properly implement key federal requirements, neglecting to enforce the Clean Air Act's MACT and BACT rules-while turning to unsupported and suspect factual claims for support. EPA's obligation is to protect the public health and environment by enforcing the hazardous air pollutant and prevention of significant deterioration mandates to install effective controls capable of drastically reducing the amount of VOC and HAP the Oil Terminal will emit. EPA's failure to discharge its duty has not only led the agency astray to propose emission limits that are not at all protective, but to fail to establish monitoring methods necessary to ensure compliance with these lax limits, and to propose to issue a PSD permit contrary to the federally-enforceable terms of the standard permit Bluewater obtained from Texas to authorize its Midway Facility. Bluewater's impacts analysis is based on assumptions that likely underestimate actual project emissions and fails altogether to consider the negative effects that may result from the deposition of the massive quantities of VOC and hazardous air pollution the Draft Permits authorize.

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https://www.texasstandard.org/stories/study-shows-correlation-between-proximity-to-oil-refineries-and-cancer-risk-but-narrower-research-still-needed/.

[182] *Id.*

[183] *Id.*

In addition to its wholly inadequate analysis of applicable pollution control requirements, EPA also arbitrarily limited the project's area of impact it considered as part of its cursory environmental justice review. This allowed the agency to turn a blind eye to the probable effects of the Oil Terminal on already overburdened communities and environmental justice communities along the Texas Gulf Coast. EPA also failed to credit evidence, including direct public testimony, that Bluewater's project will endanger thriving tourism and fishing that many near the facility rely on to feed their families. The unprecedented nature of the proposed project and the widespread local opposition to the project conveyed to EPA at the public hearings and in public comments, only further underscore the importance of EPA's role to safeguard against public health harms caused by Bluewater's heavy pollution.

Commenters implore EPA not to finalize the Draft Permits. EPA's decision to approve the Draft Permit despite the many fatal deficiencies identified by these comments and by those testifying at public hearings concerning the Draft Permit will undermine the credibility of the Agency, diminish the effectiveness of long-standing public health protections established by Congress, and will result in physical, economic, and social harms to families exposed to the massive quantities of dangerous uncontrolled pollution Bluewater's terminal will emit.

Sincerely,

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