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Mr. Carlos I. Perez-Perez
Environmental Protection Specialist
Maritime Administration
Office of Deepwater Port Licensing and Port Conveyance
1200 New Jersey Avenue SE, W21-310 (MAR-530)
Washington, DC 20590
Telephone: 202-366-3790
E-Mail: C.PerezPerez@dot.gov

Mr. Ken Smith
Project Manager
U.S. Coast Guard
2703 Martin Luther King Jr Ave SE,
Washington, DC 20020
Telephone: 202-372-1413
Email: Ken.A.Smith@uscg.mil

**RE: Comments on Draft Environmental Impact Statement, Bluewater Texas Terminal
LLC, Docket No. MARAD-2019-0094 (USACE: SWG-2019-00174)**

C. The DEIS Fails to Evaluate the Project's Unprecedented Local and Regional Air Pollution Impacts, including its Cumulative Impacts

Bluewater's operational emissions from its offshore loading, vessel traffic, and Harbor Island terminal would allow unprecedented levels of air pollutants that pose serious health and environmental threats. Yet the DEIS fails to put into perspective the Project's staggering levels of harmful air pollution – 22,276.2 tons per year of VOCs and 869 tons per year of HAPs.²⁸² If MARAD and USCG authorize the Project as proposed by Bluewater, the air pollution allowed from Bluewater's offshore loading alone²⁸³ would be the largest single source of VOCs and benzene in the entire country and greater than the combined VOC emissions from all 200+ major sources of air pollution in the highest VOC-emitting county in the country (Harris County, Texas).²⁸⁴

These unprecedented emissions could be consequential to human health and the environment, both near the facility and in areas downstream of the prevailing onshore winds.²⁸⁵ The Buoy's HAPs would include large quantities of the dangerous "BTEX" chemicals that volatilize from crude oil.²⁸⁶ They are:

- Benzene (73 tons per year): Benzene is a known carcinogen which is linked to leukemia. Benzene also may cause reproductive effects in women, and animal tests have shown it can adversely affect fetal development. In acute, short-term exposure, benzene can cause irritation, dizziness, headaches, and even unconsciousness or death at high levels.²⁸⁷
- Toluene (113 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.²⁸⁸
- Ethylbenzene (39 tons per year): Ethylbenzene is associated with respiratory effects, throat irritation, chest constriction, irritation of the eyes, and neurological effects such as dizziness.²⁸⁹
- Xylene (159 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.²⁹⁰

VOCs as a class pose serious health and environmental threats. VOCs alone can irritate the eyes, nose, and throat, and cause difficulty breathing and nausea.²⁹¹ But VOCs also react with nitrogen oxides (NO_x)²⁹² and sunlight to form ozone (also known as "smog").²⁹³ 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.²⁹⁴ Ozone exposure also can cause cardiovascular harm, such as heart attacks, strokes, or congestive heart failure.²⁹⁵ The American Lung Association explains that "winds can carry ozone far from where it formed, even internationally across borders and across the oceans."²⁹⁶ Bluewater acknowledges that the ozone emissions from its facility could pose significant environmental impacts, both overwater and onshore.²⁹⁷

Given the magnitude of the emissions and serious health risks, it is imperative that MARAD and USCG fully evaluate the Project's air pollution impacts. As explained further below, the DEIS's analysis of air quality impacts is deficient under NEPA for three reasons. First, as high as these emission limits are, they actually underestimate the amount of pollution emitted from Bluewater's Oil Terminal, and thus the DEIS fails to take a hard look at the magnitude of Bluewater's air quality impacts. Second, the DEIS

fails to evaluate the cumulative emissions from other nearby permitted industrial sources in its analysis of Bluewater's compliance with federal air quality standards. Third, the DEIS fails to evaluate mitigation for Bluewater's unprecedented air pollution levels, despite the availability of feasible pollution control technology that could reduce emissions by at least 95 percent.

These deficiencies could have **real, harmful consequences to residents of the Coastal Bend** and undermine MARAD and USCG's conclusions that the Project would not lead to exceedances of federal air quality standards. The DEIS predicts that Bluewater's emissions combined with existing background concentrations of certain pollutants, such as ozone, would be very close to exceeding federal air quality thresholds.²⁹⁸ As discussed below, adding emissions from other nearby permitted but not yet operating sources could increase these levels above air quality thresholds. Failure to evaluate and disclose the full extent and significance of Bluewater's potential air pollution impacts violates NEPA, particularly when these impacts may result in exceedances of federal air quality standards.²⁹⁹ Moreover, MARAD and USCG must evaluate possible harms to environmental justice populations from the substantial increase in regional air pollution concentrations from the Project, regardless of the agencies' determination of the Project's compliance with federal air quality standards.³⁰⁰

²⁸¹ See 40 CFR § 1502.22.

²⁸² DEIS at 3-325 to 3-326. We note that the numbers in the DEIS are higher than the emissions limits from EPA's Draft Air Permits for Bluewater. See Draft Title V Permit for Bluewater, at 13, (Nov. 8, 2020). The DEIS covers more sources of emissions than the Clean Air Act permits, such as vessel emissions and the Harbor Island facility. See DEIS App'x P, Table O-13.

²⁸³ The annual emissions limits from EPA's draft air permits for Bluewater's marine loading are 18,936 tons per year VOCs and 833 tons per year HAPs. EPA Draft Title V Permit for Bluewater, at 13, (Nov. 8, 2020).

²⁸⁴ See Exhibit 31, Earthjustice and EIP Comments on Bluewater Texas Terminal Draft Air Permits, Docket No. EPA-R06-OAR-2020-0510, Permit Nos.: R6PSD-DWP-GM8, R6T5-DWP-GM8, and R6NOMA-DWPGM8, at 5-8 (January 11, 2021) [hereinafter "Earthjustice and EIP Bluewater Air Permit Comments"].

²⁸⁵ See Bluewater DWPA Appl. Vol. II, App'x T, Air Dispersion Modeling Results., at p. 3-9 (providing wind rose showing a predominately southeasterly wind flow near the Oil Buoys).

²⁸⁶ See Bluewater DWPA Appl. Vol. I, App'x Z, Title V Permit App.

²⁸⁷ U.S. Dep't of Health & Human Servs., "Toxicological Profile for Benzene" at 4-7 (Aug. 2007), https://www.epa.gov/sites/production/files/2014-03/documents/benzene_toxicological_profile_tp3_3v.pdf.

²⁸⁸ EPA, Toluene Hazard Summary, <https://www.epa.gov/sites/production/files/2016-09/documents/toluene.pdf>.

²⁸⁹ EPA, Ethylbenzene Hazard Summary, <https://www.epa.gov/sites/production/files/2016-09/documents/ethylbenzene.pdf>.

²⁹⁰ EPA, Xylenes Hazard Summary, <https://www.epa.gov/sites/production/files/2016-09/documents/xylenes.pdf>.

²⁹¹ Am. Lung Ass'n, Volatile Organic Compounds, <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds>.

²⁹² 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 13-31.

²⁹³ Am. Lung Ass'n, Volatile Organic Compounds, <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds>.

²⁹⁴ Am. Lung Ass'n, Ozone, <https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/ozone>.

²⁹⁵ *Id.*

²⁹⁶ *Id.*

²⁹⁷ Bluewater DWPA App. Vol. II, at 13-29.

²⁹⁸ DEIS at 3-329 to 3-330 (estimating that Bluewater will contribute 6 ppb of ozone based on its ozone precursor emissions, where the background levels of ozone in the project region are 62 ppb and the NAAQS for ozone is 70 ppb).

²⁹⁹ NEPA requires, as part of the determination of the significance of impacts, evaluation of whether the action "threatens a violation of Federal, State, or local requirements imposed for the protection of the environment." 40 C.F.R. § 1508.27(b)(10) (2019). The NAAQS are such a requirement. See *TOMAC v. Norton*, 433 F.3d 852, 863 (D.C. Cir. 2006).

³⁰⁰ See Section IX., below; *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").