BEFORE THE ADMINISTRATOR UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:)	
TCEQ Title V Air Operating Permit)	
No. 03784)	Pe
For the Valero Energy Partners, L.P.,)	
Valero Partners Houston)	
Issued by the Tayos Commission on)	
Environmental Quality)	
· · ·		

Permit No. O3784

PETITION TO OBJECT TO THE TITLE V OPERATING PERMIT FOR THE VALERO HOUSTON REFINERY

Pursuant to § 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), Texas Environmental, Justice Advocacy Services ("t.e.j.a.s."), Caring for Pasadena Communities, and Sierra Club ("Lone Star Chapter") ("Petitioners")¹ petition the Administrator of the U.S. Environmental Protection Agency ("EPA") to object to the above-referenced proposed Title V permit issued by the Texas Commission on Environmental Quality ("TCEQ") for the tank farm portion of the Valero Houston refinery, owned by Valero Energy Partners, L.P. and located at 9701 Manchester Street, Houston.

BACKGROUND

As discussed below, the proposed Title V permit for the tank farm at Valero's Houston Refinery in the environmental justice community of Manchester (the "Proposed Permit") fails to comply with Title V requirements in multiple ways. The Proposed Permit and TCEQ's Response to Public Comments ("RTC") demonstrate that the Proposed Permit does not include monitoring sufficient to demonstrate compliance with all applicable requirements. Specifically, the Draft Permit does not include adequate monitoring, reporting, recordkeeping, or emission calculation requirements to ensure compliance with (A) hourly and annual Maximum Allowable Emission Rate Table ("MAERT") emission limits for tanks from New Source Review Permit 129444 or (B) VOC emission limits. Additionally, (C) the permit must require more frequent and more reliable monitoring for stationary vents. Each of these failures to assure compliance with applicable Clean Air Act requirements violates 42 U.S.C. §§ 7661c(a) and (c), and 40 C.F.R. §§ 70.6(a)(3)(i)(A) and (c)(1). Compliance is particularly imperative given the tank releases that occurred in the wake of Hurricane Harvey. Further, the Proposed Permit violates Title V by failing to make information incorporated by reference readily available to the public. The EPA should object to the Proposed Permit for these reasons.

¹ The undersigned attorneys submit this petition on behalf of Petitioners.

THE PROPOSED PERMIT ON WHICH THIS PETITION IS BASED

This petition asks EPA to object to the proposed Title V permit for the tank farm at Valero's Houston Refinery (Permit No. O3784). On June 17, 2022, Petitioners submitted comments to TCEQ on the Draft Permit ("June 2022 Comments"). *See* Ex. A, June 2022 Comments. Petitioners also participated in the public hearing held December 12, 2022, at Hartman Park in Manchester. On August 16, 2024, the Executive Director published its Response to Public Comments and a proposed federal operating permit.

PETITIONERS

Caring for Pasadena Communities is a community-based nonprofit organization committed to raising awareness of environmental issues affecting residents of Pasadena and nearby communities along the Houston Ship Channel, where many of its members live and work. Caring for Pasadena Communities is organized to advocate for these communities, improve public education on environmental issues, and ensure equal treatment for low-income residents in environmental matters. This work has entailed direct involvement in the public participation process of numerous projects by highlighting environmental justice concerns for various permitting agencies that would otherwise go unnoticed and unaccounted for.

Sierra Club's Lone Star Chapter has members who live in east Houston and on the west end of the Houston Ship Channel. Sierra Club's mission is to explore, enjoy, and protect the wild places of the earth, to practice and promote the responsible use of the earth's ecosystems and resources, to educate and enlist humanity to protect and restore the quality of the natural and human environment, and to use all lawful means to carry out these objectives. To achieve this, Sierra Club focuses in part on ways to prevent and reduce harmful air pollution, including from petroleum refineries such as Valero's Houston facility, and ensuring the full implementation and enforcement of national and local refinery limits and standards in permits such as the proposed permit at issue in this petition.

T.e.j.a.s. is a non-profit group whose mission is to create sustainable, healthy communities in the Houston Ship Channel region by educating individuals on health impacts from environmental pollution and empowering individuals to promote enforcement of environmental laws. T.e.j.a.s. promotes environmental protection through education, policy development, community awareness, and legal action where possible and appropriate. In furtherance of this mission, t.e.j.a.s. provides services to its members and constituents and educates the public about air pollution, fires, explosions, spills, releases, and other chemical disasters at industrial facilities in Texas, particularly at refineries and petrochemical facilities in the Houston Ship Channel. T.e.j.a.s.' members and constituents include those who live in the Manchester, Galena Park, Milby Park, and Pasadena neighborhoods, which are the neighborhoods that are most exposed to and most affected by the Valero Houston refinery's emissions.

GENERAL TITLE V PERMIT REQUIREMENTS

To protect public health and the environment, the Clean Air Act prohibits stationary sources of air pollution from operating without or in violation of a valid Title V permit, which must include conditions sufficient to "assure compliance" with all applicable Clean Air Act requirements. 42 U.S.C. §§ 7661c(a), (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1). "Applicable requirements" include all standards, emissions limits, and requirements of the Clean Air Act. 40 C.F.R. § 70.2. Congress intended for Title V to "substantially strengthen enforcement of the Clean Air Act" by "clarify[ing] and mak[ing] more readily enforceable a source's pollution control requirements." S. Rep. No. 101-228 at 347, 348 (1990), *as reprinted in* A Legislative History of the Clean Air Act Amendments of 1990 (1993), at 8687, 8688. As EPA explained when promulgating its Title V regulations, a Title V permit should "enable the source, States, EPA, and the public to better understand the requirements to which the source is subject, and whether the source is meeting those requirements." Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992).

Among other things, a Title V permit must include compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1). The D.C. Circuit has explained that Title V requires that a "monitoring requirement insufficient 'to assure compliance' with emission limits has no place in a permit unless and until it is supplemented by more rigorous standards." *Sierra Club v. EPA*, 536 F.3d 673, 677 (D.C. Circ. 2008).

If applicable requirements themselves contain no periodic monitoring, EPA's regulations require permitting authorities to add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R. § 70.6(a)(3)(i)(B); *see also In the Matter of Mettiki Coal, LLC*, Order on Petition No. III-2013-1 (Sept. 26, 2014) ("*Mettiki* Order") at 7. The D.C. Circuit has also acknowledged that the mere existence of periodic monitoring requirements may not be sufficient. *Sierra Club,* 536 F.3d at 676–77. For example, the court noted that annual testing is unlikely to assure compliance with a daily emission limit. *Id.* at 675. In other words, the frequency of monitoring methods must bear a relationship to the averaging time used to determine compliance. 40 C.F.R. § 70.6(c)(1) of EPA's regulations acts as a "gap filler" and requires that permit writers must supplement a periodic monitoring requirement inadequate to assure compliance. *Id.* at 675; *see also Mettiki* Order at 7.

In addition to including permit terms sufficient to satisfy EPA's Title V monitoring and reporting requirements, permitting authorities must include a rationale for the monitoring and reporting requirements selected that is clear and documented in the permit record. *Mettiki* Order at 7-8; *see also* 40 C.F.R. § 70.7(a)(5) ("The permitting authority shall provide a statement that sets forth the legal and factual basis for the draft permit conditions").

If a state proposes a Title V permit that fails to include and assure compliance with all applicable Clean Air Act requirements, EPA must object to the issuance of the permit before the end of its 45-day review period. 42 U.S.C. § 7661d(b)(1); 40 C.F.R. § 70.8(c). If EPA does not object to a Title V permit, "any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period ... to take such action." 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). The Clean Air Act provides that EPA "shall issue an objection ... if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements" of the Act. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1); *see also N.Y. Pub. Interest Group v. Whitman*, 321 F.3d 316, 333 n.12 (2d Cir. 2003) (explaining that under Title V,

"EPA's duty to object to non-compliant permits is nondiscretionary"). EPA must grant or deny a petition to object within 60 days of its filing. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

GROUNDS FOR OBJECTION

For all of the reasons discussed below, EPA must object to the proposed Title V permit for Valero's Tank Farm because that permit fails to satisfy substantive requirements of the Clean Air Act and EPA's Title V regulations.

I. ENVIRONMENTAL JUSTICE CONCERNS MANDATE INCREASED FOCUS AND ACTION BY EPA TO ENSURE THAT THE PERMIT'S PROVISIONS ARE STRONG AND COMPLY WITH TITLE V AND OTHER CLEAN AIR ACT REQUIREMENTS.

As Petitioners pointed out in their comments (Ex. A, June 2022 Comments at 7-12), communities surrounding the Valero Houston Refinery are home to a high density of low-income and minority populations. Enveloped by industrial activity and overburdened by hazardous and other air pollution, these communities are subjected to environmental conditions that fail even the

most basic tests of pollution burden. Valero's insufficient Title V monitoring and compliance assurance conditions raise severe environmental justice concerns for these communities.²

Harris County, which includes Valero's Houston Refinery, is currently in severe nonattainment for the 2008 ozone National Ambient Air Quality Standards ("NAAQS")³ and moderate nonattainment for the 2015 ozone NAAQS.⁴ Previously, the county was designated severe nonattainment for the 1997 standard.⁵ EPA denied Texas' request to extend Houston-Galveston-Brazoria's ("HGB") attainment deadline because the area was unlikely to attain the 2008 ozone NAAQS by its deadline, or even within a year after the deadline.⁶ As a result, EPA increased HGB's 2008 standard nonattainment classification to severe, triggering a "more stringent set of implementation requirements" which is "warranted where the Agency has identified populations that may already be overburdened by pollution."⁷ Valero's emission of hundreds of tons per year of ozone precursors, including NOx and VOCs, contributes to unhealthy levels of ozone in the county.

Houston Ship Channel communities face serious health impacts because they are surrounded by petroleum refineries and petrochemical facilities. The Houston Ship Channel is the largest hub in the nation for these types of facilities⁸ and these communities have borne the brunt of their emissions. For decades, large numbers of community members have been burdened by increased vulnerability to health effects from air pollution due to their age. Manchester is particularly exposed to emissions from Valero's Houston Refinery, along with other Houston Ship Channel facilities.

Researchers consistently find disproportionate cumulative impacts from pollution in the community around Valero's Houston Refinery. Texas A&M researchers concluded "[r]esidents of the environmental justice neighborhood of Manchester, located on Houston's East End, are disproportionately exposed to toxic pollutants from both industry and transportation infrastructure."⁹ As long as Valero's Houston Refinery continues to operate outside legally

⁹ G. Sansom *et al.*, *Domestic Exposures to Polycyclic Aromatic Hydrocarbons in a Houston, Texas, Environmental Justice Neighborhood*, ENV'T. JUSTICE (Oct. 2018),

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6241524/ (noting that "[i]n another study, the total PAHs

² See In the Matter of United States Steel Corp. – Granite City Works, Order on Petition No. V-2011-2 (Dec. 3, 2012) ("Granite City Works Order").

³ 87 Fed. Reg. 60,926 (Nov. 7, 2022).

⁴ 87 Fed. Reg. 60,897 (Nov. 7, 2022); TCEQ, *Houston-Galveston-Brazoria: Current Attainment Status*, (last updated Oct. 13, 2023) (explaining that even after EPA lowered the primary and secondary eight-hour ozone NAAQs to 0.070 parts per million (ppm), attainment was not met) <u>Houston-Galveston-Brazoria: Current Attainment</u> Status - Texas Commission on Environmental Quality - www.tceq.texas.gov (last visited July 22, 2024).

⁵ 81 Fed. Reg. 78,691 (Nov. 8, 2016). Redesignation for the 1979 and 1997 NAAQs was accomplished through an unlawful redesignation substitute regulation. *See Air Quality Mgmt. Dist. v. EPA*, 882 F.3d 1138, 1152 (D.C. Cir. 2018). This regulation did not meet Clean Air Act requirements, and so t.e.j.a.s. has challenged this unlawful redesignation. *See Downwinders at Risk et al v. EPA*, No. 18-60290 (5th Cir. filed Apr. 19, 2018).

⁶ EPA, *EPA Legal Tools to Advance Environmental Justice: Cumulative Impacts Addendum*, Pub. No. 360R22002, at 7-8 (Jan. 2023).

⁷ *Id.*; *see also* 87 Fed. Reg. at 21,825, 21,835 (April 13, 2022).

⁸ Yukyan Lam et. al., Toxic Air Pollution in the Houston Ship Channel: Disparities Show Urgent Need for Environmental Justice, NAT. RESOURCE DEF. COUNSEL, at 1 (Sept. 2021).

required monitoring and compliance, Manchester neighborhoods will be inundated with increased emissions.

Communities surrounding Valero's Houston refinery are overwhelmingly comprised of people of color and low-income residents.¹⁰ Specifically, EPA found that 85,289 people live within a three-mile radius of the Valero refinery—94% of whom are people of color (including a large percentage of Latino and African American residents), 29% are children under the age of 18, and 11% are seniors aged 65 and older.¹¹ In addition, ECHO indicates that the area surrounding the facility is above the 90th percentile for 12 environmental justice indices, including the Air Toxics Cancer Risk (98th percentile), the PM_{2.5} index (96th percentile), NATA Respiratory Hazard index (95th percentile), and the Risk Management Plant Proximity index (97th percentile).¹² ECHO lists the refinery as being an environmental justice concern.¹³

Petitioners are aware of 32 schools¹⁴ and two dozen public parks¹⁵ within a three-mile radius of the Valero refinery where residents visit and engage in recreation and where children play outside. For example, J.R. Harris Elementary School—a public school where 61% of students are English language learners, 99% are African American and/or Latino, and 100% are economically disadvantaged—is within one mile of the Valero refinery, and within close proximity to a chemical manufacturer and a hazardous waste facility.¹⁶ While Valero's Houston Refinery is relieved of legally required monitoring measures, these community members are daily harmed by its pollution.

Countless studies form a consensus that these communities' proximity to hundreds of petroleum and petrochemical facilities cause severe health impacts. In 2010, research from University of Texas showed that children living within two miles of the Houston Ship Channel

observed in Manchester were more analogous to settled house dust collected in a residential area close to an industrial complex in Sumgayit, Azerbaijan (2.9 mg/m2), than in a rural, agricultural community in Texas (0.11 mg/m2)").

¹⁰ See EPA, ECHO Database – Valero Houston Refinery, <u>https://echo.epa.gov/detailed-facility-report?fid=110000460885</u> (last visited August 17, 2024).

¹¹ Id.

 $^{^{12}}$ *Id*.

¹³ Id.

¹⁴ Ex. B, EJScreen Community Report – Valero Houston Refinery 3-mi Radius, at 3.

¹⁵ John R. Harris Park, Harris County Park; Hartman Park, Houston, TX; Clinton Park, Houston, TX; Milby Park, Houston, TX; Oak Forest Park, Houston, TX; Ray Park, Houston, TX; Charlton Park, Houston, TX; Gus Wortham Park, Houston, TX; Pleasanton manor park, Houston, TX; Robinson Park, Houston, TX; Meadowcreek Village, Houston, TX; Allendale Spaceway, Houston, TX; Oak Meadow, Houston, TX; Ingrando Park, Houston, TX; Woodruff Park, Houston, TX; Glenbrook Park & Golf Course, Houston, TX; Ray Park, Houston, Texas; Memorial Park, Pasadena Texas; Sunset Park, Pasadena, Texas; Friendship Garden, Local Conservation Area, Pasadena, TX; Crane Park, Pasadena, TX; Cascade Park, Pasadena, TX; Light Company Park, Pasadena, TX; Vermillion Park, Pasadena, TX; Parklane Play Lot, Pasadena, TX; Park Place Park, Houston, TX; Highlands Park, Pasadena, TX; Mason Park, Houston, TX; Elm Street Park, Houston, TX.

¹⁶ Tex. Edu. Agency, 2018-2019 School Report Card, Harris Elementary, Houston ISD, <u>https://rptsvr1.tea.texas.gov/cgi/sas/broker?_service=marykay&_program=perfrept.perfmast.sas&cyr=2019&level=c_ampus&search=campname&namenum=Harris&campus=101912166&_debug=0&prgopt=2019%2Fsrc%2Fsrc.sas</u> (last visited July 24, 2024).

have a 56 percent higher risk of leukemia than children that live further away.¹⁷ In 2015, Texas Department of State Health Services found that in the East Harris County census tract, "the number of other leukemia cases among all ages was statistically significantly higher than expected."¹⁸ For adults, brain and cervical cancer cases were also "statistically significantly higher than expected."¹⁹ A 2019 study confirmed that emissions from HAPs and VOCs can cause increased threat of cancer, non-cancer chronic effects, and acute impacts, for vulnerable populations.²⁰

In addition to severe, confirmed health impacts, these communities suffer environmental "double jeopardy."²¹ A 2016 report revealed that the most-exposed, most-affected east Houston neighborhoods—including Harrisburg-Manchester (where 97% of the population are people of color and 37% live in poverty) and Galena Park (86% are people of color and 21% live in poverty)—face an unjust "double jeopardy" of extra health impacts from toxic air pollution and disproportionate safety threats when compared with two mainly white and higher income neighborhoods in west Houston.²² The same report found that "[1]ong-term daily exposures to air pollution can lead to health effects that go unaddressed due to residents' limited financial and health care resources."²³

Serious environmental harms suffered by Houston Ship Channel's fence line communities are compounded by poverty, food security, housing, and healthcare vulnerabilities.²⁴ Harrisburg-Manchester neighborhoods are particularly exposed to environmental vulnerabilities, suffering "50 to 55 times the burdens experienced by the Houston region overall" and growing to 60 times more exposure in the most recent data years.²⁵ Nearly half of the population experiences these health burdens without health insurance.²⁶

¹⁷ K. Walker *et al.*, *An investigation of the association between hazardous air pollutants and lymphohematopoietic cancer risk among residents of Harris County, Texas*, U. OF TEX. H. SCI. AT HOUSTON, SCH. OF PUB. H. (2010), <u>https://www.semanticscholar.org/paper/Preliminary-epidemiologic-investigation-of-the-the-Walker-Coker/3b6775f96037b7dd2104a11296784f52d4cddf33?p2df</u>.

¹⁸ Tex. DSHS, Supplemental Analyses, Assessment of the Occurrence of Cancer, East Harris County, Texas, 1995-2012 (Dec. 28, 2015), <u>https://s3.documentcloud.org/documents/2107698/assessment-finds-elevated-cancer-rates-in-parts.pdf</u> (last visited July 24, 2024).

¹⁹ Id.

²⁰ D. Payne Sturges, M. Marty, *et al.*, *Healthy Air, Healthy Brains: Advancing Air Pollution Policy to Protect Children's Health*, 109 AMER. J. PUB. H. 4 (April 1, 2019) (highlighting that particularly vulnerable populations include pregnant women and exposed children who have extra susceptibility and exposure to this pollution in utero, and as infants). <u>https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2018.304902</u> (last visited July 24, 2024).

²¹ Ronald White *et. al.*, *Double Jeopardy in Houston: Acute and Chronic Exposures Pose Disproportionate Risks for Marginalized Communities*, UNION OF CONCERNED SCIENTISTS (2016),

https://www.ucsusa.org/sites/default/files/attach/2016/10/ucs-double-jeopardy-in-houston-full-report-2016.pdf. ²² Id.

²³ Id.

²⁴ Lam *supra* note 8, at 3.

²⁵ *Id.* at 5

²⁶ RICE UNIV KINDER INST. FOR URBAN RSCH., Houston Community Data Connections: Harrisburg/Manchester (May 1, 2024), <u>https://www.datahouston.org/</u> (last visited July 22, 2024).

South Texas has just experienced another hurricane that highlighted disproportionate pollution impacts on environmental justice communities.²⁷ In 2017, Hurricane Harvey's "second storm" released thousands of tons of additional pollution into Ship Channel communities, including at least 120 tons of VOCs and 12.5 tons of other unpermitted emissions released by Valero's Houston Refinery.²⁸ Hurricane Imelda in October 2019 reinforced Harvey's revelations as refineries and chemical facilities released over 100,000 pounds of excess toxic air pollution, including carcinogenic and acute health-threatening chemicals, benzene and 1,3-butadiene.²⁹ And just weeks ago, Hurricane Beryl revealed that even a Category 1 Hurricane can result in significant emissions releases.³⁰ Between July 8 and 10, 2024, seventeen air emissions events attributed to Hurricane Beryl were reported to TCEQ, including dozens of tons of Carbon Monoxide, NOx, ethylene, SO₂, and other pollutants.³¹ Several studies have concluded that Manchester is particularly heavily impacted by these storm and flood related releases.³²

Despite Chemical Safety Board warnings about hurricanes' toxic consequences for communities around chemical and refining facilities,³³ TCEQ still has failed to require Valero and other Ship Channel facilities to strengthen their hurricane preparation and toxic release prevention plans. It is unclear whether TCEQ has done anything at all to attempt to prevent hurricane-related releases from occurring season after season. TCEQ has a legal duty under the federal regulations, 40 C.F.R. § 68.215, to inspect, audit, and assure compliance with the federal Risk Management Program regulations, including the 2017 Amendments also known as the Chemical Disaster Rule.³⁴

https://www.houstonchronicle.com/news/houston-texas/houston/article/After-Harvey-a-secondstorm-of-air-

²⁹ See P. Trevizo, Imelda Cited in Release of Almost 100,000 Pounds of Air Pollutants, HOUSTON CHRON. (Sept. 24, 2019) 2019), <u>https://www.houstonchronicle.com/news/houston-texas/houston/article/Imelda-cited-in-release-of-almost-100-000-pounds-14465369.php</u>; TEXARKANA GAZETTE, *Texas Agency Blames Imelda in Mass Release of Air Pollutants* (Sept. 25, 2019) <u>https://www.texarkanagazette.com/news/2019/sep/25/texas-agency-blames-imelda-mass-release-air-pollut/;</u> C. Maxouris & D. And one, *Barges Break Loose and Strike a Bridge Near Houston After Imelda Forces 400 Water Rescues and Strands 300 Drivers*, CNN (Sept. 20, 2019)

https://www.cnn.com/2019/09/20/weather/imelda-flooding-friday-wxc/index.html.

²⁷ Sean Reilly, *Hurricane Beryl's Toll: Polluted Air*, E&E NEWS (July 10, 2024)

https://subscriber.politicopro.com/article/eenews/2024/07/10/hurricane-beryls-toll-polluted-air-00167297 (last visited July 23, 2024); Shanti Menon, *Hurricanes' Hidden Risk: Toxic Chemicals*, EDF (Updated July 8, 2024). ²⁸ L. Olsen, *After Harvey, a 'second storm' of air pollution, state reports show*, HOUSTON CHRON. (Mar. 30, 2018),

<u>12795260.php (quoting Juan Parras, Texas Environmental Justice Advocacy Services)</u>; see also, Wendee Nicole, A Different Kind of Storm: Natech Events in Houston's Fenceline Communities, ENV'T. HEALTH PERSPECTIVES, at 2 (May 2021).

³⁰ Reilly *supra* note 27.

³¹ *Id*.

³² Garett T. Sansom *et. al.*, *Spatial Distribution of Polycyclic Aromatic Hydrocarbon Contaminants After Hurricane Harvey in Houston Neighborhoods*, 11 J. OF HEALTH & POLLUTION 29, at 8 (March 2021) (explaining that communities adjacent to the Houston Ship Channel may be at an increased risk of exposure to polycyclic aromatic hydrocarbons (PAH) contamination and half of the Manchester neighborhood experiences heavy contamination); Shanti Menon, *Hurricanes' Hidden Risk: Toxic Chemicals*, EDF (Updated July 8, 2024) (highlighting that 93% of toxic releases in Houston during Hurricane Harvey occurred within a four-mile radius of Manchester).

³³ Chem. Safety Bd., U.S. Chemical Safety Board Urges Chemical Companies to Prepare for Harsh Hurricane Season, (July 3, 2024) (highlighting toxic chemical releases in Texas and Louisiana, in 2017 and 2020 respectively, which caused serious toxic chemical releases).

³⁴ 40 C.F.R. § 68.215(e): "The air permitting authority or the agency designated by delegation or agreement under paragraph (d) of this section shall, at a minimum: (1) Verify that the source owner or operator has registered and

The EPA has already recognized serious environmental justice concerns for communities near the Valero Refinery.³⁵ EPA's Region 6 Texas Environmental Collaborative Action Plan in 2016 recognized the need to "work with proper authorities to investigate and address problematic permitted facilities."³⁶ Manchester, Galena Park, Pasadena, and nearby communities were identified as requiring particular attention due to environmental justice concerns.³⁷ Then EPA's June 2022 Title V order highlighted Manchester's disproportionately high EJScreen indices and acknowledged that "any additional emissions could interfere with protecting public health and environment."³⁸ EPA concluded that environmental justice concerns require giving "focused attention to the adequacy of monitoring (as well as other concerns raised by Petitioners)."³⁹ Finally, in 2023, EPA affirmed its awareness that Houston Ship Channel communities are disproportionately impacted by pollution and highlighted Title V as a method to scrutinize compliance with Clean Air Act requirements.⁴⁰

II. THE PROPOSED PERMIT CONTAINS INSUFFICIENT MONITORING REQUIREMENTS TO ENSURE COMPLIANCE WITH EMISSIONS LIMITS FOR TANKS UNDER NSR 129444.

The Clean Air Act provides that Title V permits must include monitoring and reporting requirements sufficient to assure compliance with all applicable emission limits and standards and with the permit terms and conditions. Specifically, permits "shall include . . . a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than

submitted an RMP or a revised plan when required by this part; (2) Verify that the source owner or operator has submitted a source certification or in its absence has submitted a compliance schedule consistent with paragraph (a)(2) of this section; (3) For some or all of the sources subject to this section, use one or more mechanisms such as, but not limited to, a completeness check, source audits, record reviews, or facility inspections to ensure that permitted sources are in compliance with the requirements of this part; and (4) Initiate enforcement action based on paragraphs (e)(1) and (e)(2) of this section as appropriate." *See also* 40 C.F.R. Part 68; "Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act," 82 Fed. Reg. 4594 (Jan. 13, 2017).

³⁵ See EPA, Order Granting in Part and Denying in Part a Petition for Objection to Permit, in the Matter of Valero Refining-Texas L.P., Valero Houston Refinery, Petition NO. VI-2021-8 (June 30, 2022) ("Valero Houston Order") at 9-11.

³⁶ EPA Region 6, Texas Environmental Justice Collaborative Action Plan at 4 (Aug. 3, 2016),

https://www.epa.gov/sites/production/files/2016-12/documents/texas_ej_plan_8-3-16_final.pdf; see also, at EPA, Region 6 Climate Adaptation Implementation Plan, at 34 (Oct. 2022) (emphasizing the need to increase "Risk Management Plan inspections at facilities in EJ areas along the Gulf Coat that are susceptible to impacts from storms. And highlighting the need to "[t]arget facilities noncompliant with America's Water Infrastructure Act (AWIA) of 2018, which requires Risk and Resilience Assessments and Emergency Response Plans to address risks such as Natural disasters caused by climate change.") <u>https://www.epa.gov/system/files/documents/2022-10/bh508-R06%20EPA%20CAIP_Submitted_October2022_508.pdf</u>. ³⁷ EPA Region 6, Texas Environmental Justice Collaborative Action Plan at 4 (Aug. 3, 2016),

 ³⁷ EPA Region 6, Texas Environmental Justice Collaborative Action Plan at 4 (Aug. 3, 2016),
<u>https://19january2017snapshot.epa.gov/sites/production/files/2016-12/documents/texas_ej_plan_8-3-16_final.pdf</u>.
³⁸ Valero Houston Order at 7.

³⁹ Valero Houston Order at 9-11 (noting that "Executive Orders 13990 and 14008, signed by President Biden on January 20, 2021, and January 27, 2011, respectively, affirm the federal government's commitment to environmental justice"); *see also In the Matter of United States Steel Corp. – Granite City Works*, Order on Petition No. V-2011-2 at 4–6 (December 3, 2012).

⁴⁰ EPA, Tools to Advance Environmental Justice: Cumulative Impacts Addendum, at 8, 11 (Jan. 2023).

every 6 months, the results of any required monitoring, and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan." 42 U.S.C. § 7661c(a). Permits must contain "[a]ll monitoring and analysis procedures or test methods required under applicable monitoring and testing requirements, including part 64 of this chapter and any other procedures and methods that may be promulgated pursuant to sections 114(a)(3) or 504(b) of the Act." 40 C.F.R. § 70.6(a)(3)(i)(A). Additionally, Title V permits "shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1) (Title V permits must contain "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit."). A "monitoring requirement insufficient 'to assure compliance' with emission limits has no place in a permit unless and until it is supplemented by more rigorous standards." *Sierra Club*, 536 F.3d at 677.

The Proposed Permit does not include adequate monitoring, reporting, recordkeeping, or emission calculation requirements to ensure compliance with hourly and annual limits for VOCs, hydrogen sulfide, benzene, and ammonia from the tanks covered by NSR Permit 129444's MAERT, for either "routine" emissions or emissions during planned "MSS" (maintenance, startup, and shutdown) periods. Additionally, the Draft Permit cannot ensure compliance with hourly and annual limits for VOCs, NOx, SO2, CO, hydrogen sulfide, benzene, particulate matter, and ammonia released during "Thermal Oxidizer Controlled MSS Activities" at the tanks. The failure of the Draft Permit to assure compliance with these limits violates 40 C.F.R. § 70.6(c)(1) and 42 U.S.C. §§ 7661c(a) and 7661c(c). Compliance is particularly imperative given the tank releases that occurred in the wake of Hurricane Harvey.

The tanks at issue are all listed in Permit 129444's MAERT and are Storage Tanks 90FB005, 90FB001, 90FB006, 91FB917, 90FB230, 90FB205, 90FB226, 90FB228A, 90FB505, 90FB506, 90FB507, 91FB918, 91FB920, 91FB921, 90FB215, 90FB216, 90FB233, 90FB232, 90FB224, 91FB909, 91FB912, 91FB913, 90FB234, 90FB511, 90FB210, 90FB211, and 90FB212. For ease of reference, Permit 129444 is attached to these comments, and the MAERT is located at the end of that permit. See Ex.C. The hourly VOC limits for routine emissions from these tanks are listed in Permit 129444's MAERT and range from 0.49 lbs/hour to 4.76 lbs/hour, and the annual VOC limits for these tanks are also listed in the MAERT and range from 0.12 tons/year to 23.98 tons/year (as a cap for three different storage tanks).⁴¹ Permit 129444 MAERT; Proposed Permit's "New Source Review Authorization References" at p. 81 (incorporating 129444 into the Title V permit); Proposed Permit Special Condition 10 (generally incorporating applicable NSR authorizations by reference). The MAERT also lists hourly and annual hydrogen sulfide limits for routine emissions from several of the tanks, ranging from less than 0.01 lbs/hour to 0.02 lbs/hour for the hourly limits and from less than 0.01 tons/year to 0.06 tons/year (as a cap for three different tanks) for the annual limits. The MAERT additionally lists hourly and annual benzene limits for routine emissions from several of the tanks, ranging from 0.01 lbs/hour to 0.20 lbs/hour for the hourly limits and from 0.01 tons/year to 1.13 tons/year (as a cap for three different tanks) for the annual limits. And, for tank 90FB506, the MAERT lists routine emission limits for ammonia of less than 0.01 lbs/hour and less than 0.01 tons/year. Further, the MAERT lists extremely high

⁴¹ Per footnote 4 of the MAERT, the annual limits are calculated on a 12-month rolling basis.

hourly limits for "Tank MSS Activities" of 529.27 lbs/hour VOCs and 8.07 lbs/hour benzene.⁴² The Proposed Permit and Permit 129444 cannot ensure compliance with any of these VOC, hydrogen sulfide, benzene, or ammonia limits for routine emissions or MSS periods.

In addition, Permit 129444's MAERT lists the following limits for "Thermal Oxidizer Controlled MSS Activities" at the tanks (also referred to as "TO-MSS" in the permit. *See* MAERT, Att. A to Permit 129444 ("MSS Activity Summary")); 5.21 lbs/hour and 2.42 tons/year VOCs; 6.12 lbs/hr and 0.25 tons/year NOx; 0.01 lbs/hour and less than 0.01 tons/year SO2; 5.14 lbs/hour and 0.22 tons/year CO; 0.04 lbs/hour and 0.02 tons/year benzene; and 0.01 lbs/hour and less than 0.01 tons/year for PM2.5, PM10, hydrogen sulfide, and ammonia. The Proposed Permit and Permit 129444 also cannot ensure compliance with any of these NOx, SO2, CO, hydrogen sulfide, benzene, particulate matter, and ammonia limits for "Thermal Oxidizer Controlled MSS Activities" at the tanks.

The CAA provides that Title V permits must include monitoring and reporting requirements sufficient to assure compliance with all applicable emission limits and standards. 42 U.S.C. § 7661c(c), 7661c(a); 40 C.F.R. § 70.6(a)(3)(i)(A). If applicable requirements themselves contain no periodic monitoring, EPA's regulations require permitting authorities to add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R. § 70.6(a)(3)(i)(B); 30 Tex. Admin. Code § 122.142(c); see Mettiki Order at 7.43 The D.C. Circuit has also acknowledged that the mere existence of periodic monitoring requirements may not be sufficient. Sierra Club, 536 F.3d at 676-77. For example, the court noted that annual testing is unlikely to assure compliance with a daily emission limit. Id. at 675. In other words, the frequency of monitoring methods must bear a relationship to the averaging time used to determine compliance. 40 C.F.R. § 70.6(c)(1) of EPA's regulations acts as a "gap filler" and requires that permit writers must supplement a periodic monitoring requirement inadequate to the task of assuring compliance. Sierra Club, 536 F.3d at 675. In addition to including permit terms sufficient to satisfy EPA's Title V monitoring requirements, permitting authorities must include a rationale for the monitoring requirements selected that is clear and documented in the permit record. Mettiki Order at 7-8 (citing 40 C.F.R. § 70.7(a)(5)).

EPA has objected to Title V permits for failing to assure compliance with applicable emission limits where the relevant Title V permit does not clearly identify the calculation methods used to comply with those limits and instead only refers to calculation methods from some unspecified permit application. *See, e.g., In the Matter of Gulf Coast Growth Ventures, LLC*, Order on Petition No. VI-2021-3 (May 12, 2022) ("*Gulf Coast* Order") at 15–20. "Questions concerning whether a title V permit contains sufficient monitoring—or, more precisely, whether monitoring or emission calculation methodologies contained in another document (*e.g.,* a permit application) are properly incorporated by reference into a title V permit—are core title V issues." *Id.* at 18.

EPA has explained:

 ⁴² Footnote 5 of the MAERT states: "Annual emissions from activities authorized by EPN TANK-MSS will be accommodated as part of the annual allowable rate of each of the storage tanks."
⁴³ Mettiki Order available at <u>https://www.epa.gov/sites/production/files/2015-</u>

^{08/}documents/mettiki decision2013.pdf.

Information that would be . . . incorporated by reference into the issued permit must first be currently applicable and available to the permitting authority and public. . . . Referenced documents must also be specifically identified. Descriptive information such as the title or number of the document and the date of the document must be included so that there is no ambiguity as to which version of which document is being referenced. Citations, cross references, and incorporations by reference must be detailed enough that the manner in which any referenced material applies to a facility is clear and is not reasonably subject to misinterpretation. Where only a portion of the referenced document applies, applications and permits must specify the relevant section of the document. Any information cited, cross referenced, or incorporated by reference must be accompanied by a description or identification of the current activities, requirements, or equipment for which the information is referenced.

Id. (quoting White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program, 37 (Mar. 5, 1996)); see White Paper Number 2 at 36–41 (explaining how incorporation by reference can satisfy the requirements of CAA Section 504).

Adequate monitoring for these tanks is especially important given Harris County's nonattainment status for ozone (for which VOCs are a precursor)⁴⁴ and because, as shown by Permit 129444's extremely high hourly VOC and benzene limits for "Tank MSS Activities," tank emissions at the tank farm can rapidly spike to levels that would negatively affect air quality.

TCEQ guidance has also made clear that tank emissions can be quite significant and affect air quality. A December 5, 2006 TCEQ memo from Dan Eden titled "Air Emissions During Tank Floating Roof Landings" explained the following regarding tank floating roof landings: "If the liquid level in [a tank with a floating roof] is lowered to below the level of the floating roof support legs, the roof will rest (land) on the legs, or supports, rather than on the liquid, severely limiting the control efficiency of the floating roof. Air emissions from tanks are greater while the tank roof is landed and remain so until the tank is either completely emptied and purged of organics or the tank is refilled and the roof is again floating."⁴⁵ That same memo also emphasizes that underreporting emissions from roof landings is "of particular importance" in the Houston region because "it may play a role in demonstrating attainment."⁴⁶

Here, the Proposed Permit itself contains no monitoring or emission calculation provisions for the tank MAERT limits from Permit 129444. Permit 129444 provides that, for purposes of complying with the MAERT VOC, hydrogen sulfide, benzene, and ammonia limits for the various

⁴⁴ High ozone events are episodic in nature and can occur at irregular intervals. Nothing in Permit 2501A or the Title V permit limits or prevents high VOC emissions from tanks' MSS activities from occurring prior to or during possible or expected high ozone days.

 ⁴⁵ TCEQ, Interoffice Memorandum re: Air Emissions During Tank Floating Roof Landings 1 (Dec. 5, 2006), <u>https://www.tceq.texas.gov/assets/public/permitting/air/memos/tank_landing_final.pdf</u>.
⁴⁶ Id.

tanks, Valero is to: (1) "calculate[]" at least routine emissions "using the methods that were used to determine the MAERT limits in the permit application," Special Condition 10.F⁴⁷; (2) "estimate[]" MSS emissions "using the methods identified in the permit application, consistent with good engineering practice," Special Condition 11.E; (3) "calculate[]" emissions from roof landings "using the methods described in Section 7.1.3.2 of AP-42 'Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids' dated November 2006 and the permit application," Special Condition 12.F.4; and (4) apparently for at least annual MSS emissions, "perform[] monthly calculations as required in Special Condition No. 12.F," MAERT Footnote 5. The Proposed Permit and Permit 129444 apparently rely on the above MSS and roof-landing provisions for calculation of NOx, SO2, CO, hydrogen sulfide, benzene, particulate matter, and ammonia emissions during "Thermal Oxidizer Controlled MSS Activities" at the tanks, since neither the Proposed Permit nor Permit 129444 discusses how to calculate emissions during such activities.

These provisions cannot ensure compliance with the tanks' hourly and annual VOC, hydrogen sulfide, benzene, and ammonia limits from Permit 129444's MAERT—for either routine or MSS emissions—or the NOx, SO2, CO, hydrogen sulfide, benzene, particulate matter, and ammonia limits for "Thermal Oxidizer Controlled MSS Activities" for the following reasons:

First, the Proposed Permit and Permit 129444 fail to sufficiently identify the relevant emission calculation and monitoring methods. For both routine emissions and MSS emissions, Permit 129444 (at Special Conditions 10.F and 11.E) merely mentions calculation methods from unspecified "permit applications." Permit 129444 does not identify the calculation methods from the "permit applications" or identify which "permit applications" contains the calculation methods. Such vague references to "permit applications" cannot ensure compliance with the tanks' hourly and annual VOC, hydrogen sulfide, benzene, and ammonia limits from Permit 129444's MAERT—or the hourly and annual NOx, SO2, CO, hydrogen sulfide, benzene, particulate matter, and ammonia limits for "Thermal Oxidizer Controlled MSS Activities." See In the Matter of Gulf Coast Growth Ventures at 19-20. These references to unspecified permit applications are especially insufficient because the tanks listed in Permit 129444 were previously covered by five different NSR permits, all with presumably at least one associated application.⁴⁸ Permit 129444's MAERT lists limits for 27 tanks, and applications for those various tanks could list different emission calculation methods. Further, Valero routinely revises its NSR permits; permit revision applications could also list different relevant emission calculation methods. It is unreasonable and thwarts the purpose of Title V to require the public to comb through multiple permit applications to find the relevant calculation methods. These calculation methods can and should be specifically identified in the Title V Permit or Permit 129444.49

⁴⁷ Special Condition 10.F adds: "Sample calculations from the application shall be attached to a copy of this permit at the plant site."

⁴⁸ Permit 129444 was created to replace these five other permits as an administrative matter as part of the transfer of the tank farm from Valero to Valero Energy Partners L.P. *See* Ex. D, Valero Permit Application for Permit 129444 23, 25 (Feb. 17, 2015).

⁴⁹ Although Permit 129444's Special Condition 10.F states that "[s]ample calculations from the application shall be attached to a copy of this permit at the plant site," those sample calculations are not attached to the permit itself. Making those sample calculations available only at the plant site thwarts the purpose of Title V by denying the public access to the relevant emission calculation methods.

Similarly, the Proposed Permit cannot ensure compliance with the VOC and benzene MSS limits for the tanks for the additional reason that Permit 129444 identifies multiple, possibly conflicting methods to calculate MSS emissions. Permit 129444 (at Special Conditions 11.E and 12.F.4) mentions using unspecified calculation methods from unidentified permit applications and, for roof landings, both the "methods described in Section 7.1.3.2 of AP-42 'Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids' dated November 2006 and the permit application" (emphasis added). Thus, for roof landings, it is entirely unclear whether AP-42 methods or the permit application methods are to be used. And, to make matters worse, footnote 5 to the MAERT provides that, for at least annual MSS emissions, Valero is to "perform[] monthly calculations as required in Special Condition No. 12.F"—the same condition that mentions both AP-42 and permit application methods. Thus, to calculate non-roof-landing MSS emissions from the tanks, it is also entirely unclear whether Valero is to use calculation methods from some mystery permit applications or AP-42 methods.

In sum, it is impossible for the public or regulators to determine how emissions are to be calculated under the varying circumstances of tank operations. *See In the Matter of Shell Chemical LP and Shell Oil Co., Deer Park Chemical Plant and Refinery*, Order on Petition Nos. IV-2014-04 and IV-2014-05 (Sept. 24, 2015) ("*Deer Park* Order") ("[T]he Petitioners demonstrated that the record, including the permit and the response to comments, does not explain what monitoring methods assure compliance with VOC emission limits for storage tanks.").

For many of the tanks, the ED's RTC references other sources besides the Proposed Permit for the applicable monitoring requirements. For example, for tank 91FB919, TCEQ references Table D of the PBR Supplemental Table ("OP-PBRSUP") dated November 29, 2021. RTC at 16. For a series of tank units, e.g., 90FB002, et al., TCEQ references OP-PBRSUP form dated November 29, 2021, and the application. *Id.* TCEQ also relies on references to monitoring for tank units in the NSR Permit 129444. RTC at 16. Again, none of these requirements are stated in the Proposed Permit in a manner that would allow the public to determine from the Proposed Permit what monitoring requirements exist and how the emissions should be calculated for the reasons stated above.

Second, to the extent Valero is actually expected to use it to calculate short-term MSS emissions, "Section 7.1.3.2 of AP-42 'Compilation of Air Pollution Emission Factors, Chapter 7 - Storage of Organic Liquids' dated November 2006"—which is listed as a potential method for calculating MSS emissions during roof landings and other MSS periods (Permit 129444 Special Condition 12.F.4, MAERT Footnote 5)—cannot ensure compliance with the hourly tank MSS limits or annual limits (covering both MSS and routine emissions) because that 2006 version of AP-42 does not include any method for calculating short-term emissions from tanks; it only includes methods for calculating annual emissions. *See* Ex. E, Oct. 2019 Decl. of Dr. Ranajit Sahu at ¶21. In October 2024, EPA finalized and published its changes to AP-42 does not include these proposed changes. *See* Ex. E, Oct. 2019 Decl. of Dr. Ranajit Sahu at ¶21. Of course, the 2006 methods for determining annual tank emissions simply cannot accurately determine emissions

⁵⁰ EPA, AP 42, Fifth Edition, Volume I Chapter 7: Liquid Storage Tanks, available at <u>https://www.epa.gov/system/files/documents/2024-10/c7s1_2024_clean.pdf</u>.

during short-term MSS periods, when emissions can rapidly spike. *Id.* The Proposed Permit should reference the updated version of the AP-42 adopted by EPA.

In particular, the MSS limit for VOCs (529.27 lbs/hr, *see* Permit 129444 MAERT at "Tank MSS Activities") shows that the tanks currently listed in permit 129444's MAERT can emit at a rate over 100 times more than the highest hourly limit for an individual tank's "routine" emissions listed in the MAERT (4.76 lbs/hour)—and more than 1,000 times the lowest such limit (0.49 lbs/hour). Put another way, Permit 129444's highest annual limit for VOCs from an individual tank is 16.13 tons/year. If that tank emitted at the MSS rate of 529.27 lbs/hour for just 61 hours, it would exceed its annual limit. Further, one of the tanks listed in 129444's MAERT has an annual VOC limit of 0.12 tons/year (or 240 lbs/year). For this tank, operating at the MSS rate for just half an hour would result in an exceedance of its annual limit. Thus, emissions from the tanks could easily vary by a degree that would cause an exceedance of the applicable limits and that variability should be accounted for in any method of calculating the tank emissions here. *See* Ex. E, Oct. 2019 Sahu Decl. ¶¶ 22-23. The 2006 version of AP-42, however, cannot account for this short-term variability since the 2006 calculation methods do not estimate any short-term or MSS emissions. *See id.* ¶ 23. In its RTC, the ED acknowledges its use of AP-42, but it does not indicate what version of AP-42 it is using. RTC at 17.

Third, the permit's calculation methods for estimating tank emissions are wholly inadequate because Permit 129444 only requires Valero to inspect floating roof tank components annually or less frequently, with the exception of occasions on which tanks are emptied or degassed, see Permit 129444 Special Condition 10.B (requiring inspections and seal gap measurements in keeping with 40 C.F.R. 60.113b), and such inspections are not frequent enough to assure that each tank seal is properly maintained. See Ex. E, Oct. 2019 Sahu Decl. ¶ 25.51 A typical floating roof tank has numerous seals, including rim seals (primary and secondary) and seals at each roof penetration. Ensuring that each of these seals is functioning properly is not a trivial task. Unspecified and vague requirements to inspect tanks annually, with no accompanying and detailed checklist (tailored for each tank) provides no assurance at all that each potential seal will be inspected. Even small gaps in seals-such as due to distortion of the tank itself or the floating roof, which can happen with age, geological settling, product expansion, precipitation accumulation on the roof pan, and expansion due to variations in ambient conditions such as temperature, high winds, hurricanes and the like-can result in large fugitive emissions. Thus, the permit's vague inspection requirement does nothing to assure good maintenance of each location where fugitive emissions can escape from the tanks. Compounding this problem, § 60.113b only generally requires that problems with seals and other maintenance issues be addressed within 45 days of discovery (and even allows for a 30-day extension on top of that). 40 C.F.R. § 60.113b(a)(2), (b)(4). Failing to address these problems for 45 or 75 days can lead to very large quantities of fugitive VOC emissions. Id.

In addition, visual inspections are simply inadequate to detect the small gaps in seals that can lead to large tank emissions. Ex. E, Oct. 2019 Sahu Decl. ¶26. Optical imaging (such as FLIR cameras) is necessary to detect these small gaps in tank seals. *Id*. Thus, Valero should be required

⁵¹ See also Alex Cuclis, *Why Emission Factors Don't Work at Refineries and What to Do About It*, at 18-19 (Presentation/Paper for the EPA at the Emissions Inventory Conference in Tampa, Florida on August 13-16, 2012), https://www3.epa.gov/ttnchie1/conference/ei20/session7/acuclis.pdf.

to use FLIR or similar optical imaging on a periodic basis, no less than quarterly, to detect leaks in the tanks. *Id*.

To remedy the above problems and ensure compliance with the hourly and annual limits for the tanks from permit 2501A's MAERT, EPA should object and direct TCEQ to revise the Proposed Permit and/or Permit 129444 to:

- Make the emission calculation methods used for calculating the tanks' emissions clear in the permit and available for comment for both routine and MSS emissions.
- Require (at least) use of the methodology in the October 2024 AP-42 methods for shortterm emissions from the tanks, if Valero is currently required to use 2006 AP-42 emission calculation methods.
- Require inspections of tank seals using FLIR or similar optical imaging methods at least quarterly and require any gaps in seals to be remedied within three days.

Petitioners further suggest that additional changes could include: (1) requirements for the collection of data to confirm each parameter that is an input or assumption for Valero's calculation method(s), as well as direct verification of emissions through methods such as DIAL so that any AP-42-based methods can be verified/calibrated. Because the Proposed Permit does not clearly state which monitoring requirements and methods are required to calculate tank emissions, Petitioners cannot determine whether these additional changes are definitely needed. Thus, EPA should require TCEQ to make the emission calculation and specify the monitoring methods that Valero is required to use available for public comment and revise the permit in response to comments on those methods.

The 2017 tank releases in the wake of Hurricane Harvey showed the consequences of inadequate monitoring and lack of compliance. To avoid similar disasters from occurring again, the Proposed Permit must include adequate monitoring to ensure compliance with VOC emission limits. The release started on August 27, 2017, and continued for over <u>440 hours, more than 18</u> <u>days</u>.⁵² Floating tank roofs at Valero and other facilities collapsed, which led to the release of huge amounts of toxic chemicals directly into the air.⁵³ During and after Hurricane Harvey, Valero was one of the top 10 "plants that released the most storm-related pollution in [the] Houston area."⁵⁴ Such emissions were likely underreported due to the lack of air monitoring during the storm and reliance primarily on facility reporting.

Indeed, the investigation report from the Commission showed substantial emissions: a total release of 240,050.93 pounds of VOCs, including a number of toxic air pollutants, and an additional 92,266 pounds of unspeciated VOCs (which also contribute to ozone formation).⁵⁵ The investigation showed that benzene and methylcyclopentane emissions exceeded the state's health

⁵² Ex. F, Environmental Integrity Project, *Preparing for the Next Storm: Learning from the Man-Made Disasters that Followed Hurricane Harvey* (Aug. 16, 2018) at 6.

⁵³ *Id.* at 13.

⁵⁴ *Id.* at 12.

⁵⁵ Id. at 5.

reference values, or "short-term health-based air monitoring comparison values (AMCV)."⁵⁶ This investigation report also showed that "this incident is considered a high priority violation (HPV)."⁵⁷ Investigators concluded that better inspections and "the performance of startup, shutdown, or maintenance activities <u>could have prevented this incident</u>," and found that "[i]ssues identified during the various inspections . . . <u>are part of the pattern of poor maintenance activities concerning the Tank T-003.</u>"⁵⁸ During the toxic release, some of Petitioners' members and constituents were likely exposed to dangerous chemicals in the air that could have irritated the eyes, nose, throat, and skin.⁵⁹

Valero Energy Partners and TCEQ referred Enforcement Case 55902 to the Texas Attorney General.⁶⁰ In January 2020, the State of Texas initiated a civil suit against Valero Energy Partners, LP to enforce the Texas Clean Air Act for unauthorized emissions events that occurred at the Valero Houston Refinery. See Ex. G, Original Petition by State of Texas against Valero Energy Partners, LP, No. D-1-GN-20-000516 in the 459th Judicial District of Travis County, Texas. Specifically, the petition complains of the "poor operating condition" of Tank 3, used to store crude oil delivered to the Valero Houston Refinery, which Valero operates under PBR registration 106017. See id. at 6. The petition further alleges that there had been no internal operating inspection of Tank 3 in over 20 years in violation of American Petroleum Institute 653 standards. See id. at 6. The petition then details the specific conditions that contributed to Tank 3's failures during Hurricane Harvey, releasing 315 barrels of crude oil into a secondary containment area between August 26-27, 2017. See id. at 6-8. Valero self-reported 240,050 pounds of VOCs emitted from Tank 3 during this emissions event which lasted from August 27, 2017 to September 14, 2017 (a duration of 440 hours and 30 minutes, or 19 days). See id. at 8. In late 2020, Texas requested entry of an agreed judgment to resolve the civil suit, assessing a penalty of \$245,000. As the petition details, the serious release from Tank 3 during Hurricane Harvey demonstrates the need for TCEQ to add tank monitoring in this Proposed Permit, including requirements for internal inspections pursuant to American Petroleum Institute 653 standards.

The monitoring provisions should incorporate EPA's findings on effective tank monitoring methods. EPA concluded that lower explosive limit ("LEL") monitoring can both reduce hazardous air pollutant and other VOC emissions from gasoline storage tanks and assure compliance with emission standards. EPA has found that LEL monitoring "enhance[s] . . . inspections and more readily identif[ies] malfunctioning floating roofs."⁶¹ Gasoline storage tanks that use internal floating roofs appear to be similar to the tanks covered by the Proposed Permit. The Commission should consider requiring the use of LEL monitoring, along with other monitoring, at the tanks in this Proposed Permit to ensure the permit complies with Title V.⁶²

⁶¹ Ex. I, Memo. from RTI Int'l to EPA/OAQPS, Major Source Technology Review for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations) NESHAP, EPA Docket No. EPA-HQ-OAR-2020-0371 at 22 (Nov. 2, 2021), <u>https://www.regulations.gov/document/EPA-HQ-OAR-2020-0371-0003</u>.

⁵⁶ *Id.* at 6.

⁵⁷ Id.

⁵⁸ *Id.* at 7 (emphasis added).

⁵⁹ Ex. F, at 4, 6, 8, 12, 15, 18-19.

⁶⁰ See Ex. H, TCEQ Case No. 55902 Listing on TCEQ Website, Status of Enforcement Action Selected (as of March 10, 2019).

⁶² Periodic LEL monitoring for internal floating roof tanks can be used in conjunction with other monitoring. *Id.* at 14.

III. THE PROPOSED PERMIT STILL FAILS TO INCLUDE SUFFICIENT MONITORING FOR OPACITY FOR STATIONARY VENTS

TCEQ's Proposed Permit fails to meet Title V's requirements for opacity monitoring. By requiring inadequate monitoring, using a method shown to be ineffective and vulnerable to bias, the Proposed Permit violates 40 C.F.R. § 70.6(c)(1), 42 U.S.C. §§ 7661c(a), and 7661c(c). Therefore, EPA must object to the Proposed Permit.

A. Method 9 monitoring once per quarter is inadequate to ensure compliance with opacity limits.

The Proposed Permit's only method of monitoring to ensure compliance with continuous opacity limits is the use of Method 9 – visual smoke observation from trained observers. TCEQ requires this visible observation monitoring only once per calendar quarter. RTC at 28. If applicable requirements themselves do not contain periodic monitoring, EPA's regulations require permitting authorities to add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R. § 70.6(a)(3)(i)(B); 30 Tex. Admin. Code § 122.142(c); *see Mettiki* Order at 7–8. Method 9 monitoring is unable to yield reliable data to assure compliance, and monitoring once per quarter is likewise insufficient to meet Title V's standard. Despite Petitioners' statement that more is required, *see* Ex. A at 21-23, TCEQ has again failed to require monitoring that complies with Title V's requirements.

First, as described in Petitioners' June 2022 Comments, one-per-quarter monitoring is insufficient to ensure compliance with continuous opacity limits. The D.C. Circuit has acknowledged that "annual testing is unlikely to assure compliance with a daily emission limit." June 2022 Comments at 15 (citing *Sierra Club*, 536 F.3d at 676-77). "[T]he frequency of monitoring methods must bear a relationship to the averaging time used to determine compliance." *Id.* Here, no rational relationship exists between quarterly monitoring and continuous opacity limits. More frequent monitoring is necessary to comply with Title V.

Even if TCEQ required more frequent monitoring, however, Method 9 would still fall short. "Method 9 is insufficient to monitor for opacity as it relies on a visual smoke observation of an individual person, creates no record, and cannot be checked or independently verified." *Id.* at 22. The approach is outdated, subject to human error and potential bias, and requires ideal weather conditions. *Id.* Further, Method 9 "cannot be conducted at night[] and cannot achieve accurate results on cloudy or rainy days." *Id.* These limits make it inadequate to ensure compliance with the opacity limit for stationary vents, which applies at all times, both day and night, regardless of the weather conditions.

EPA has found that Method 9 observations cannot assure compliance with continuous opacity limits. The June 2022 Comments detail several of EPA's findings of Method 9's inadequacy:

EPA found that a Title V permit record failed to sufficiently support the use of weekly Method 9 observations to assure compliance with a continuous opacity

limit. In the Matter of EME Homer City Generation L.P. Indiana County, Pennsylvania, Order on Petitions III-2012-06, III-2012-07, and III-2013-02 (June 30, 2014) at 44. Similarly, EPA found that quarterly and biannual Method 9 observations are inadequate to assure compliance with opacity limits. See In the Matter of Pacificorp's Jim Bridger and Naughton Electric Utility Steam Generating Plants, Order on Petition No. VIII-00-1 (Nov. 16, 2000) at 19 (quarterly observations); In the Matter of Tennessee Valley Authority, Bull Run, Clinton, Tennessee, Order on Petition IV-2015-14 (Nov. 10, 2016) ("Bull Run Order") at 11 (biannual observations). In the Bull Run Order, EPA found specifically that the permitting agency "did not explain how twice-yearly Method 9 observations assure compliance with an opacity limit of 20 percent averaged over a six-minute period except for one 6-minute period per 1 hour of not more than 40 percent." Bull Run Order at 11-12.

See Ex. A at 22.

Because TCEQ's Proposed Permit fails to include monitoring requirements sufficient to ensure compliance with continuous opacity limits, EPA must object to the Proposed Permit.

In its RTC, TCEQ fails to engage with the substance of Petitioners' concerns regarding Method 9 monitoring. *See* RTC at 28. The agency does not defend Method 9 or otherwise respond to the concerns raised about Method 9's inability to ensure compliance with continuous opacity limits. TCEQ only restates that when visible emissions are detected, "the permit holder shall either report a deviation or perform a Test Method 9 observation to determine the opacity consistent with the 6-minute averaging time specified in 30 Tex. Admin. Code § 111.111(a)(1)(B). An additional provision is included to monitor combustion sources more frequently than quarterly if alternate fuels are burned for periods greater than 24 consecutive hours." *Id.* Because TCEQ fails to respond regarding Method 9's susceptibility to bias, reliance on near-perfect weather conditions, failure to create a record, or that quarterly monitoring is unable to assure compliance, this response is inadequate.

The agency likewise fails to adequately respond to concerns that once-per-quarter monitoring is insufficient. TCEQ claims to have "determined that there is a very low potential that an opacity standard would be exceeded," and therefore "continuous monitoring for these sources is not warranted." *Id.* TCEQ does not explain how it made this determination, nor respond to Petitioners' concerns that the frequency of monitoring does not match what Title V requires for an ongoing emission limit.

An agency does not fulfill its requirements under Title V by simply stating its final decision regarding a permit or noting that it "respectfully disagrees" with commenters. *Id.* It must provide a rationale for that disagreement. Here, TCEQ fails to offer any substantive response to Petitioners' arguments regarding Method 9. For this reason, EPA must object to the proposed permit.

B. EPA should require specific methods of opacity monitoring for the stationary vents.

EPA can and should require technology that assures the continuous opacity limit is met. As described in Petitioners' June 2022 Comments, Digital Camera Opacity Technology ("DCOT") is a more reliable method to ensure compliance with opacity limits. *See* Ex. A, June 2022 Comments, at 22-23. EPA has certified DCOT as a valid test method for opacity and approved it for use in a federal air toxics rule for an industrial air pollution source category.⁶³ DCOT is more reliable than Method 9 and creates a record that assists with ensuring opacity requirements are met.⁶⁴ DCOT can also save resources, as it does not require trained observers, and can provide community members with valuable air quality information.

As the permitting authority, EPA may require the use of DCOT to meet Title V's requirement that the Valero facility comply with continuous opacity limits. *See* 42 U.S.C. §§ 7661c(a), 7661c(c); 40 C.F.R. § 70.6(c)(1). Additionally, as originally suggested in the June 2022 Comments, EPA should require opacity determinations to be documented on a form, such as DCOT's electronic form, and to be provided on the Internet in real time, for public review. *See* Ex. A, June 2022 Comments, at 23.

1. TCEQ did not adequately analyze DCOT as a monitoring option in its Response to Comments.

TCEQ's response to Petitioners' suggestion of using DCOT for monitoring was inadequate. Again, TCEQ failed to address any concerns with Method 9. The agency likewise did not respond to the benefits of DCOT, saying only that the technology "is not supported as a BACT or as an applicable requirement under any applicable state or federal regulation to demonstrate compliance with opacity standards that may apply to stationary vents." RTC at 28.

Regardless of whether TCEQ has determined that Method 9 is BACT and DCOT is not (or whether TCEQ or federal regulations require the use of DCOT), this does not change the fact that Title V imposes an independent duty to ensure that monitoring is sufficient to ensure compliance with underlying NSR limits. *See, e.g.*, 40 C.F.R. § 70.6(c)(1); 42 U.S.C. §§ 7661c(a), 7661c(c). TCEQ does not address the substance of Petitioners' argument—that quarterly monitoring is too infrequent to ensure compliance with the continuous opacity limits and that Method 9 is likewise incapable of ensuring compliance. Further, the June 2022 Comments offered DCOT as a possible solution to remedy the monitoring deficiencies and comply with Title V. There could possibly be other solutions.

https://www.virtuallc.com/files/ASTM_D7520_Summary.pdf (last visited June 15, 2022); EPA, Ferroalloys National Emission Standards, 80 Fed. Reg. 37,367, 37,386 (June 30, 2015) (requiring use of digital camera technology "because we conclude this is the best method to ensure reliable and unbiased readings for opacity."). ⁶⁴ See Virtual Technology LLC, *Digital Opacity Compliance System (DOCS II SaaS)*, http://www.virtuallc.com/docs.asp (last visited Nov. 19, 2024).

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⁶³ See EPA, Recent Postings of Broadly Applicable Alternative Test Methods, 77 Fed. Reg. 8865, 8866 (Feb. 15, 2012); Letter from EPA to Colonel Hilby, Commander, Air Force (Apr. 13, 2011),

http://www.virtuallc.com/files/ALT082.pdf; Virtual LLC, ASTM D7520-09 Summary,

As described above, EPA has certified DCOT as a valid test method for opacity for a federal air toxics rule.⁶⁵ In order to ensure compliance with emission limits, as required by Title V, EPA should do the same here. *See* 40 C.F.R. § 70.6(c)(1).

IV. THE PROPOSED PERMIT VIOLATES TITLE V BY FAILING TO MAKE INFORMATION INCORPORATED BY REFERENCE READILY AVAILABLE TO THE PUBLIC

A. TCEQ's incorporation by reference of the PBR Supplemental Table is insufficient to satisfy Title V.

EPA should object to the Proposed Permit because a major basis TCEQ cites for compliance with Title V's requirements, the OP-PBRSUP, is not readily available to the public. As stated in the June 2022 Comments, "incorporation by reference of PBR...requirements into Title V permits is inconsistent with the Clean Air Act unless...information incorporated by reference into a Title V permit is readily available to the public and regulators." Ex. A, June 2022 Comments, at 34 (citing *In the Matter of Citgo Refining and Chemicals, West Plant, Corpus Christi*, Order on Petition No. VI-2007-01 (May 28, 2009) ('*Citgo* Order') at 12 n.5; *In the Matter of Shell Chemical LP and Shell Oil Co., Deer Park Chemical Plant and Refinery*, Order on Petition Nos. IV-2014- 04 and IV-2014-05 (Sept. 24, 2015) ('Deer Park Order') at 10-11). Here, that requirement is not met.

Throughout TCEQ's RTC, the agency refers to the OP-PBRSUP but does not provide access to the Table. *See* RTC at 6, 41. The OP-PBRSUP is not available through TCEQ's website. Despite the June 2022 Comments highlighting this concern, the Proposed Permit still does not incorporate the Table. *See generally* RTC. Because it is not accessible, the public and regulators must attempt to find the OP-PBRSUP in the application, search the Indexes to Air Permit by Rule, or try to visit a file room located in Austin, Texas, an over three-hour drive from the Valero facility along the Houston Ship Channel. *See* Ex. A, June 2022 Comments at 34. This external reference violates Title V, as information and requirements incorporated by reference are not readily available to the public and regulators. *See Citgo* Order at 12, n.4; *Deer Park* Order at 10-11.

Further, the failure to incorporate the PBR Supplemental Table invites confusion as to whether its requirements are properly incorporated into the Proposed Permit. It should be included within the Permit itself in order to ensure its requirements are enforceable at the facility. *See* Ex. A, June 2022 Comments, at 34; *In the Matter of Motiva Enterprises LLC, Port Arthur Refinery*, Order on Petition No. VI-2016-23 (May 31, 2018) at 30 ("Petitioners have demonstrated that the title V permit contains no direct reference to certain source-specific requirements (e.g., certified emission limits) derived from registered PBRs, and, therefore, it is not clear whether the title V permit currently includes or incorporates all requirements that are applicable to the facility[.]"). For these reasons, EPA must object to the Proposed Permit.

⁶⁵ See supra note 63.

B. TCEQ must include applicable PBR requirements within the Permit. Its failure to do so violates Title V.

Even if the OP-PBRSUP were appropriately incorporated into the Proposed Permit, the Proposed Permit would still fail Title V's requirements because it fails to include sufficient information regarding what the applicable PBRs require for the relevant emission units. While the OP-PBRSUP provides a list of the PBRs applicable to different emission units, it does not clarify what each PBR's requirements are or how they apply to the emission units. In order to locate information about the applicable PBRs, a reader must navigate through several steps. First, they must look to the Statement of Basis ("SOB"), which refers to TCEQ's website to find a list of all current PBRs. SOB at 41. That link is not included in the Proposed Permit itself, nor in the RTC. The link in the SOB leads to "Indexes to Air Permits by Rule" on TCEQ's website.⁶⁶ The third and fourth links on that page lead to indexes of air PBRs.⁶⁷ Within either of those indexes, an interested party must then search for each applicable PBR individually in order to pull up its requirements.

Petitioners highlighted that the Draft Permit "appears to list PBR registrations for at least 38 emission units, without providing...what they require." Ex. A, June 2022 Comments, at 35. In the Proposed Permit, TCEQ provides registration numbers and WCC content IDs for relevant PBRs. *See* RTC at 41. But the problem remains: the registration numbers and IDs are presented alone, unattached to any explanation within the Permit itself as to what each PBR requires. Further, TCEQ does not link those registration numbers or WCC content IDs with the relevant PBRs within the Proposed Permit, and provides no guidance on how to find information about each PBR based on the registration number or WCC content ID. Again, even if such guidance were provided, Title V requires more than pointing to information on external websites.

As raised in Petitioners' June 2022 Comments, "[i]ncorporation by reference of PBR...requirements into Title V permits is inconsistent with the Clean Air Act unless...Title V permits provide information that clearly and unambiguously explains how incorporated emission limits apply to emission units at the permitted source. [*Citgo* Order] at 12 n.5; *Deer Park* Order at 10-11." Ex. A, June 2022 Comments, at 34. That standard is again not met in the Proposed Permit. EPA must object on this basis.

⁶⁶ See Indexes to Air Permits by Rule, TCEQ (last modified July 6, 2024), https://www.tceq.texas.gov/permitting/air/permitbyrule/air pbr index.html.

⁶⁷ See Keyword Index to Air Permits by Rule, TCEQ (last modified May 24, 2024), <u>https://www.tceq.texas.gov/permitting/air/permitbyrule/pbr_index.html</u>; *Numerical Index to Air Permits by Rule*, TCEQ (last modified July 8, 2024), <u>https://www.tceq.texas.gov/permitting/air/nav/numerical_index.html</u>. Respectfully submitted this 3rd day of December 2024, on behalf of Caring for Pasadena Communities, Texas Environmental Justice Advocacy Services (t.e.j.a.s.), and Sierra Club, Lone Star Chapter.

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LIST	OF	EXH	IBITS
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Exhibit	Title
А	June 17, 2022 Comments by Petitioners on Draft Permit No. O3784
В	EJScreen Community Report, 3-mile radius
С	Valero New Source Review Permit 129444
D	Valero Application for New Source Review Permit 129444
Е	Declaration of Dr. Ranajit Sahu (October 2019)
F	Environmental Integrity Project, Preparing for the Next Storm:
	Learning from the Man-Made Disasters that Followed Hurricane
	<i>Harvey</i> (Aug. 16, 2018)
G	Original Petition by State of Texas against Valero Energy Partners,
	LP, No. D-1-GN-20-00516 in the 459 th Judicial District of Travis
	County, Texas (Jan. 2020).
Н	TCEQ Case No. 55902 Valero Partners Houston 2018
Ι	Memo from RTI Int'l to EPA/OAQPS, Major Source Technology
	Review for Gasoline Distribution Facilities (Bulk Gasoline
	Terminals and Pipeline Breakout Sessions)