



BY CERTIFIED MAIL & ELECTRONIC MAIL (regan.michael@epa.gov)

Michael Regan Administrator U.S. Environmental Protection Agency Office of the Administrator Mail Code 1101A 1200 Pennsylvania Avenue, N.W. Washington, DC 20460

Re: Notice of Intent to Sue Under the Clean Air Act Over Failure to Take Over the Main Title V Permit for Valero's Houston Refinery (Permit No. 01381)

Dear Administrator Regan:

Pursuant to § 304(a) of the Clean Air Act ("CAA"), 42 U.S.C. § 7604(a), Caring for Pasadena Communities, Sierra Club (Lone Star Chapter), Texas Environmental Justice Advocacy Series ("t.e.j.a.s."), and Environmental Integrity Project ("Plaintiffs") hereby notify you that we intend to file suit against you, in your official capacity as Administrator of the U.S. Environmental Protection Agency ("EPA"), to remedy your unreasonable delay in taking over the main CAA Title V operating permit (Permit No. 01381) ("Title V Permit" or "Permit") for Valero's Houston, Texas refinery. In June 2022, EPA objected to a previous proposed version of the Title V Permit on many grounds. Over two years later, the Texas Commission on Environmental Quality ("TCEQ"), the Title V permitting authority for Texas, still has not remedied many of these objections. Where, as here, "the permitting authority fails, within 90 days after the date of an objection [to a proposed Title V permit by EPA], to submit a permit revised to meet the objection," the CAA is clear that "the Administrator shall issue or deny the permit." 42 U.S.C. § 7661d(c). EPA has not taken over—and has unreasonably delayed taking over—the Permit.

As required by 40 C.F.R. § 54.3, the full names and addresses of the Plaintiffs providing this notice are:

Caring for Pasadena Communities 1000 Curtis Ave, Apt. 805 Pasadena, Texas 77502

Sierra Club Lone Star Chapter 6406 N. I-5, Suite 1805 Austin, Texas 78752

Texas Environmental Justice Advocacy (t.e.j.a.s.) 900 N. Wayside Drive Houston, Texas 77020

Environmental Integrity Project 888 17th St. NW, Suite 810 Washington, DC 20006

Amy Dinn and Joe Welsh of Lone Star Legal Aid are the attorneys representing Caring for Pasadena Communities. Rodrigo Cantú of Earthjustice is the attorney representing Sierra Club and t.e.j.a.s., and Patton Dycus is the attorney representing Environmental Integrity Project. Contact information for these attorneys is listed in the signature blocks below.

I. <u>Background</u>

On June 29, 2021, under 42 U.S.C. § 7661d(b)(2), Plaintiffs petitioned EPA to object to Valero's Title V permit, O1381, for the Valero Houston refinery (the "2021 Petition"). The CAA requires EPA to grant or deny Title V petitions within 60 days. 42 U.S.C. § 7661d(b)(2). EPA's deadline to act on Plaintiffs' petition was August 30, 2021.

Ten months after EPA's statutory deadline, on June 30, 2022, the agency granted Plaintiffs' petition, in large part, and objected to the Title V Permit in many different ways. *See 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").¹ In the Valero Houston Order, EPA agreed that the "area surrounding the Valero Refinery is home to a high-density of low income and minority populations and a concentration of industrial activity, and that the Petitioners raise potential environmental justice concerns." *Id.* at 11. As discussed in more detail below, EPA objected that the Title V Permit and permit record failed to: (1) include monitoring and other requirements sufficient to assure compliance with limits established by permits by rule ("PBRs"); (2) ensure compliance with National Emission Standards for Hazardous Air Pollutants ("NESHAP") requirements; (3) include monitoring, emission calculation and other requirements sufficient to assure compliance with New Source Review

¹ <u>https://www.epa.gov/system/files/documents/2022-07/Valero%20Houston%20Order_6-30-22_0.pdf</u>.

("NSR") limits for key units at the refinery; and (4) failed to provide reasoned explanation how the proposed permit's monitoring and other requirements could ensure compliance with the NSR limits for key units. *Id.* at 21-62.

More than a year after EPA objected, TCEQ issued a revised draft Title V permit on August 18, 2023, to purportedly address EPA's objections. Plaintiffs timely commented on the revised draft permit, pointing out the many objections from EPA's order that TCEQ had failed to resolve (and other problems with the revised permit). In a September 26, 2023, letter to EPA (attached here as Exhibit A), Plaintiffs also implored EPA to take over the permit, as required by 42 U.S.C. § 7661d(c). EPA did not act following that letter. On May 3, 2024, TCEQ issued a response to comments (which failed to address most of the problems with the revised permit that Plaintiffs had highlighted in their comments) and submitted a new proposed Title V permit to EPA. On August 19, 2024, Plaintiffs timely petitioned EPA to object to the new proposed permit (the "2024 Petition").² This new petition points out the many ways that the revised proposed permit fails to comply with Title V requirements and fails to resolve EPA's objections from the Valero Houston Order.³

II. EPA Has Unreasonably Delayed Taking Over the Permit

Under CAA § 304(a)(2), "any person may commence a civil action. . . against the Administrator where there is alleged failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator." 42 U.S.C. 7604(a)(2). Section 304(a) also provides that the "district courts of the United States shall have jurisdiction to compel (consistent with paragraph (2) of this subsection) agency action unreasonably delayed." *Id.* § 7604(a).

Here, EPA has unreasonably delayed taking over the Title V Permit, which is a mandatory duty under § 7661d(c). As noted above, § 7661d(c) unambiguously provides: "If the permitting authority fails, within 90 days after the date of an objection [by EPA], to submit a permit revised to meet the objection, the Administrator shall issue or deny the permit" EPA's own Title V regulations also require the agency to take over the Permit, providing that the "permitting authority shall have 90 days from receipt of an EPA objection to resolve any objection" and that, "[i]f the permitting authority . . . fails to resolve any objection [within 90 days], the Administrator will terminate, modify, or revoke and reissue the permit." 40 C.F.R. §§ 70.7(g)(4)-(5).

There is no question that (1) more than 90 days have passed since EPA issued the Valero Houston Order in June 2022 or that (2) EPA has not issued or denied the Permit. TCEQ has failed to submit a permit revised to meet many of EPA's objections from the Valero Houston Order:

² <u>https://www.epa.gov/system/files/documents/2024-08/valero-houston-petition_08-20-2024.pdf</u>.

³ In the 2024 Petition, Plaintiffs explain that there is some overlap between the substantive issues covered in the petition and issues covered by this notice letter. Out of an abundance of caution, Plaintiffs protectively included some of the same issues in both the 2024 Petition and this notice letter should EPA (wrongly and unlawfully) take the position that it has no duty to take over the permit on these issues. By including these issues in the petition, Plaintiffs in no way waive their arguments that EPA "shall issue or deny the permit" for these issues under § 7661d(c).

- EPA must take over the Title V Permit as to monitoring to ensure compliance with NSR limits for particulate matter ("PM") from the refinery's fluid catalytic cracking unit ("FCCU") because TCEQ has not resolved EPA's objection that TCEQ "provide[d] no explanation for why the stack test frequency required in the permit is adequate to ensure compliance." *See* Valero Houston Order at 36. *See also* 2024 Petition at 22-29.
- EPA must take over the Permit as to monitoring to ensure compliance with NSR limits for volatile organic compounds ("VOCs") from the refinery's two flares because TCEQ has failed to resolve EPA's objections that the "record is unclear as to whether the permit contains adequate conditions and work practice standards to assure that Valero is meeting the 98 or 99 percent destruction efficiency;" that TCEQ must specify in the Permit which VOCs are monitored by the flares' composition analyzers; and that TCEQ must specify in the Permit which gases are monitored by the flares' flow monitors. *See* Valero Houston Order at 40-42. *See also* 2024 Petition at 29-35, 44-46.
- EPA must take over the Permit as to monitoring to ensure compliance with NSR limits for sulfur dioxide ("SO2") from the flares because TCEQ has not resolved EPA's objections that the Permit must identify any conversion efficiencies being used to calculate SO2 emissions from the flares; and that TCEQ must justify any conversion efficiency to be used in the flare emission calculations. *See* Valero Houston Order at 40-42. *See also* 2024 Petition at 35-36, 46.
- EPA must take over the Permit as to monitoring to ensure compliance with NSR limits for carbon monoxide and nitrogen oxides from the flares because TCEQ has not resolved EPA's objections that the Permit must identify any relevant emission factors; and (also regarding the emission factors) that "the permit and/or permit record should be updated to include TCEQ's justification for why the monitoring is adequate to demonstrate compliance with the emission limits." *See* Valero Houston Order at 40-42, 62. *See also* 2024 Petition at 37-41, 46.
- EPA must take over the Permit as to monitoring to assure compliance with NSR limits for VOCs from the wastewater treatment system's dissolved air flotation ("DAF") unit because TCEQ has not resolved EPA's objections that TCEQ must "consider whether additional direct or parametric monitoring, such as hourly monitoring of throughput, would be necessary to assure ongoing compliance with the hourly VOC emission limits;" that "TCEQ must amend the permit record to include the rationale to demonstrate that the monitoring, recordkeeping, and reporting is sufficient to assure compliance with the hourly and annual VOC emission limits." *See* Valero Houston Order at 45. *See also* 2024 Petition at 46-48, 50-51.
- EPA must take over the Permit as to monitoring to assure compliance with NSR limits for opacity and PM from the refinery's boilers 1-4 because TCEQ has not resolved EPA's objections that TCEQ must "revise the Permit to include monitoring

sufficient to determine compliance with . . . the continuous opacity limit;" that "TCEQ has not provided any justification for why a single visual observation conducted annually would be sufficient to determine compliance with an opacity limit that applies at all times;" that "TCEQ has not provided sufficient justification for why an initial stack test without future mandated stack tests, or any apparent parametric monitoring, would be adequate for demonstrating compliance with hourly and annual PM emission limits;" and that TCEQ must "revise the Permit to include monitoring sufficient to determine compliance with the hourly and annual PM limits . . . , including any parametric monitoring on which the state is relying to ensure compliance."⁴ See Valero Houston Order at 48-49. See also 2024 Petition at 51-56.

- EPA must take over the Permit as to monitoring to assure compliance with NSR limits for fugitive VOC emissions because TCEQ has failed to resolve EPA's objections that the Permit fails to specify how fugitive emissions are calculated and directing TCEQ to clearly identify the Commission's fugitive guidance in the Permit if TCEQ is relying on it. *See* Valero Houston Order at 50-51. *See also* 2024 Petition at 56-61.
- EPA must take over the Permit as to monitoring to assure compliance with NSR limits for refinery tank VOC and benzene emissions because TCEQ has failed to resolve EPA's objection that the Permit fails to specify how VOC and benzene emissions are calculated and directing TCEQ to clearly identify the emissions factors and calculations the Permit relies on for routine and maintenance, startup, and shutdown emissions. *See* Valero Houston Order at 58. *See also* 2024 Petition at 68-69.
- EPA must take over the Title V Permit as to monitoring and reporting for PBRs 106.472 and 106.478— which cover multiple storage tank units—because, in responding that Valero will estimate and record throughput each month and calculate the rolling 12-month emissions, TCEQ has failed to resolve EPA's objection that TCEQ "revise the monitoring, recordkeeping, and reporting sufficient to assure compliance with all applicable requirements associated with PBRs." *See* Valero Houston Order at 23-24. *See also* 2021 Petition at 24, 27, and 29. *See also* 2024 Petition at 20.
- EPA must take over the Permit to assure the general duty of 40 C.F.R. § 63.642(n) from Subpart CC of EPA's air toxics regulations, to operate and maintain the facility consistent with safety and air pollution practices, is properly included for all units at the refinery that are subject to Subpart CC. TCEQ has not resolved EPA's objection that: "TCEQ must evaluate those NSPS and NESHAP provisions that are not included in the Permit, including 40 C.F.R. § 63.642(n)...and determine

⁴ EPA added: "[I]f the initial stack test did not result in any [firing rate] limitations, TCEQ did not address how a single stack test with no additional stack testing required can ensure ongoing compliance with hourly and annual limits." Valero Houston Order at 48.

if they are applicable to the Facility. If they are applicable, TCEQ should revise the Permit to include these citations." *See* Valero Houston Order at 30. *See also* 2021 Petition at 37. *See also* 2024 Petition at 21-22.⁵

EPA has unreasonably delayed taking over the Title V Permit as required by § 7661d(c). More than two years have passed since EPA issued the Valero Houston Order. EPA's delay in issuing or denying the Permit is particularly unreasonable considering that (as mentioned above) EPA did not act on Plaintiffs' 2021 Title V petition until ten months after EPA's statutory deadline to do so.

Several provisions of § 7661d show that the purpose of the Title V permit review and objection process is to quickly resolve problems with Title V permits. These provisions underscore that EPA's delay here is unreasonable. For example, EPA has 45 days to object to a Title V permit after receiving a state's proposed permit, and the public then only has 60 additional days beyond that to petition the EPA to object. 42 U.S.C. § 7661d(b)(1)-(2). And EPA is required to grant or deny a Title V petition within 60 days after the petition is filed. *Id.* § 7661d(b)(2). Then, the state only has 90 days to resolve any objection from EPA, as discussed above. *Id.* § 7661d(c).

That EPA's delay is unreasonable is also underscored by the fact that taking over the Permit would help reduce the disproportionate effects experienced by the environmental justice communities surrounding Valero's Houston refinery. EPA has recognized that air pollution from this refinery causes environmental justice harms. For example, in addition to in the Valero Houston Order (as noted above), in its March 9, 2023 comments to TCEQ on the renewal of the refinery's main NSR permit (permit 2501), Region 6 noted:

EPA Region 6 has conducted an analysis using EPA's EJScreen to assess key demographic and environmental indicators within a five-kilometer radius of the Valero Houston Refinery. This analysis shows a total population of approximately 98,000 residents within a five-kilometer radius of the facility, of which approximately 94% are people of color and 53% are low income. In addition, the EPA reviewed the EJScreen EJ Indices, which combine certain demographic indicators with 12 environmental indicators. The results show that 11 of the 12 EJ Indices in this five-kilometer area exceed the 80th percentile in the State of Texas, with six of the 12 EJ Indices exceeding the 90th percentile. In addition, EPA used the AirToxScreen Mapping Tool to assess the cancer risk for the community. This analysis shows that the Manchester community has a total risk of 50 per million. The greatest risk comes from formaldehyde which accounts for 46.6% of the toxic emissions. The tool shows that the Valero Houston Refinery is the largest emitter of toxic emissions in the census tract that includes both the refinery and the Manchester community. This tool shows that the Houston Refinery released 33 tons of hydrogen cyanide, 15.6 tons of hexane, and 9.3 tons of benzene in 2017, just to name a few of the toxic emissions released by the refinery.⁶

⁵ For all of EPA's objections that TCEQ has failed to resolve, Plaintiffs' 2024 Title V petition explains in detail how TCEQ has failed to resolve those objections.

⁶ EPA's March 2023 comments are attached here as Exhibit B.

Resolving the problems that EPA identified in the Valero Houston Order—but that TCEQ has failed to fix—would help lessen the disproportionate impact on neighboring and downwind communities. For example, as discussed above, the Permit's monitoring and emission calculation methods cannot ensure that some of the refinery's highest emitting units are complying with their air pollution limits, including limits for VOCs and SO2 from the flares, PM from the FCCU and boilers, fugitive VOC emissions and VOCs from some of the refinery's tanks and the DAF unit.

EPA's unreasonable delay will only be compounded if EPA fails to take over the Title V Permit before Plaintiffs commence their lawsuit after the mandatory six-month waiting period. Under CAA § 304(a), Plaintiffs may commence their unreasonable delay lawsuit at any time beginning 180 days after the postmark date of this notice letter (which is August 28, 2024). 42 U.S.C. § 7604(a).

III. Conclusion

If EPA does not cure its failure to take over Valero's Title V Permit, Plaintiffs intend to file suit in federal district court after 180 days to remedy EPA's unreasonable delay. Plaintiffs will seek declaratory relief, injunctive relief and litigation fees and costs, as appropriate.

If you have any questions regarding this notice, please do not hesitate to contact the undersigned counsel using the contact information listed below. Plaintiffs would also welcome an opportunity to discuss a resolution of this matter before the notice period expires.

Thank you for your prompt attention to this matter.

Respectfully submitted,

Counsel for Caring for Pasadena Communities

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cc: Jeff Robinson, Branch Chief, EPA Region 6, robinson.jeffrey@epa.gov

EPA Title V Petition Oversight, <u>titlevpetitions@epa.gov</u>

David Garcia, Director, Air and Radiation Division, U.S. EPA Region 6, <u>david.garcia@epa.gov</u>

Aimee Wilson, Environmental Scientists, Air Permits AR-PE, U.S. EPA Region 6, <u>Wilson.Aimee@epa.gov</u>

Exhibit A

Plaintiffs' September 26, 2023 Letter to EPA

September 26, 2023

Cynthia Kaleri Air Permits Section Chief U.S. Environmental Protection Agency Region 6 1201 Elm Street, Suite 500 Dallas, Texas 75270 Via e-mail to kaleri.cynthia@epa.gov Aimee Wilson Texas Permit Coordinator U.S. Environmental Protection Agency Region 6 1201 Elm Street, Suite 500 Dallas, Texas 75270 Via e-mail to Wilson.Aimee@epa.gov

David Garcia, P.E. Director, Air & Radiation Division U.S. Environmental Protection Agency Region 6 1201 Elm Street, Suite 500 Dallas, Texas 75270 Via e-mail to garcia.david@epa.gov

Re: TCEQ's Failure to Submit a Title V Permit for the Valero Houston Refinery Revised to Meet EPA's Objections

Dear Ms. Kaleri, Ms. Wilson, and Mr. Garcia:

Texas Environmental Justice Advocacy Services (t.e.j.a.s.), Caring for Pasadena Communities, Sierra Club, Environmental Integrity Project, and Earthjustice request that EPA take over and revise the Valero Houston refinery's Clean Air Act Title V operating permit to remedy the problems EPA identified in its June 2022 order objecting to the permit. This is required by 42 U.S.C. § 7661d(c) of the Act.

In June 2022, EPA—responding to a June 2021 petition that these groups filed—objected to many aspects of the refinery's Title V permit.¹ The grounds for EPA's objections included that the proposed permit: failed to include monitoring sufficient to assure compliance with limits for fugitive emissions and many of the refinery's main units, including its flares, fluid catalytic cracking unit (FCCU), a wastewater treatment unit, a heater and boilers, tanks, and cooling towers; could not assure compliance with permits by rule; and failed to assure compliance with air toxics and new source performance standards, including the requirements for a flare management plan. EPA also objected that the Texas Commission on Environmental Quality (TCEQ) had failed to show that it provided public notice through a mailing list.

TCEQ recently issued a new draft Title V permit for this refinery to supposedly address EPA's objections. This new draft permit, however, fails to adequately resolve the overwhelming majority of EPA's objections (and does not even attempt to resolve some of them), as discussed

¹ 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), available at: https://www.epa.gov/system/files/documents/2022-07/Valero%20Houston%20Order_6-30-22_0.pdf.

in the accompanying comments we submitted to TCEQ on September 20, 2023. The Clean Air Act's Title V provides: "If the permitting authority fails, within 90 days after the date of an objection [to a proposed Title V permit by EPA], to submit a permit revised to meet the objection, the Administrator shall issue or deny the permit in accordance with the requirements of this subchapter." 42 U.S.C. § 7661d(c). Here, for all the reasons detailed in our comments, TCEQ has "fail[ed], within 90 days after" EPA's June 2022 objection "to submit a permit revised to meet the objection." Thus, the Clean Air Act is clear that EPA "shall issue or deny the permit." EPA's Title V regulations are equally clear that the "permitting authority shall have 90 days from receipt of an EPA objection to resolve any objection" and that, "[i]f the permitting authority . . . fails to resolve any objection [within 90 days], the Administrator will terminate, modify, or revoke and reissue the permit." 40 C.F.R. §§ 70.7(g)(4)-(5).

Other portions of § 7661d also show that the point of the permit review and objection process is to quickly resolve problems with Title V permits. For example, EPA has 45 days to object to a Title V permit after receiving a state's proposed permit, and the public then only has 60 additional days beyond that to petition EPA to object. *Id.* § 7661d(b)(1)-(2). And EPA is required to grant or deny a Title V petition within 60 days after the petition is filed. *Id.* § 7661d(b)(2).

If EPA does not soon take over the Title V permit for the Valero Houston refinery and TCEQ fails to resolve the permit's problems through this latest round of notice and comment (which will surely be the case), either EPA will need to object to a new proposed Title V permit (whenever TCEQ gets around to addressing our latest comments and issuing a new proposed permit) or our groups will be forced to file another petition asking EPA to object. If EPA does object again, the permit would presumably be sent back to TCEQ yet again to revise the permit to meet the new objections. This endless cycle of objection and revision is contrary to the plain language and purpose of Title V. TCEQ must not be allowed to thwart the intent of Title V and avoid the Commission's obligation to promptly revise this permit to resolve EPA's objections.

In addition to being required by the statute and EPA's Title V regulations, it is important that EPA take over this permit to help reduce the disproportionate effects experienced by the environmental justice communities surrounding Valero's Houston refinery. EPA has recognized that air pollution from this refinery causes environmental justice harms. For example, in March 9, 2023 comments to TCEQ on the renewal of the refinery's main New Source Review permit (permit 2501), Region 6 noted:

EPA Region 6 has conducted an analysis using EPA's EJScreen to assess key demographic and environmental indicators within a five-kilometer radius of the Valero Houston Refinery. This analysis shows a total population of approximately 98,000 residents within a five-kilometer radius of the facility, of which approximately 94% are people of color and 53% are low income. In addition, the EPA reviewed the EJScreen EJ Indices, which combine certain demographic indicators with 12 environmental indicators. The results show that 11 of the 12 EJ Indices in this five-kilometer area exceed the 80th percentile in the State of Texas, with six of the 12 EJ Indices exceeding the 90th percentile. In addition, EPA used the AirToxScreen Mapping Tool to assess the cancer risk for the community. This analysis shows that the Manchester community has a total risk of 50 per million. The greatest risk comes from formaldehyde which accounts for 46.6% of the toxic emissions. The tool shows that the Valero Houston Refinery is the largest emitter of toxic emissions in the census tract that includes both the refinery and the Manchester community. This tool shows that the Houston Refinery released 33 tons of hydrogen cyanide, 15.6 tons of hexane, and 9.3 tons of benzene in 2017, just to name a few of the toxic emissions released by the refinery.

The problems with Valero's Title V permit increase the disproportionate impact on neighboring and downwind communities. For example, the permit's monitoring and emission calculation methods cannot ensure that some of the refinery's highest emitting units are complying with their air pollution limits, including limits for volatile organic compounds (VOCs) and sulfur dioxide from the flares, particulate matter from the FCCU and cooling towers, fugitive VOC emissions, and VOCs from some of the refinery's tanks and the wastewater treatment system's dissolved air flotation unit.

In sum, EPA must itself fix the problems with this refinery's Title V permit. If Region 6 deems it helpful, we would welcome the opportunity to meet (virtually) with the appropriate staff to discuss the need for EPA to take over this permit. If Region 6 would like meet with us, please contact Rodrigo Cantú and Amy Dinn to schedule a meeting. Their contact information is listed below.

Thank you.

Sincerely,

Juan Parras, Executive Director Texas Environmental Justice Advocacy Services (t.e.j.a.s.) <u>Parras.juan@gmail.com</u> (281) 513-7799

Ana Parras Co-Director and Administrator Texas Environmental Justice Advocacy Services (t.e.j.a.s.) <u>Ana.parras@yahoo.com</u> (713) 371-7721 Amy Catherine Dinn Litigation Director Environmental Justice Team Equitable Development Initiative Lone Star Legal Aid 1415 Fannin Houston, Texas 77002 <u>adinn@lonestarlegal.org</u> (713) 652-0077 ext. 1118 *Counsel for Caring for Pasadena Communities*

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Exhibit B

EPA's March 9, 2023 Comments to Texas Commission on Environmental Quality



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 6 1201 ELM STREET, SUITE 500 DALLAS, TEXAS 75270

March 9, 2023

Mr. Sam Short, Deputy Director Office of Air Texas Commission on Environmental Quality (MC 122) P.O. Box 13087 Austin, TX 78711-3087

Re: Renewal and Amendment of Permit 2501A and PSDTX767M2 Valero Refining-Texas LP, Houston Refinery Harris County, Texas

Dear Mr. Short:

On August 18, 2022, we wrote to your agency to express concerns with the above-referenced permitting application currently before the Texas Commission on Environmental Quality (TCEQ). EPA Region 6's concerns at the time related to the public participation process associated with the Valero Houston Refinery air permitting action. We were notified that some individuals on the interested parties list were not notified of the permit when it went to public notice. We requested that TCEQ use its discretion and hold an additional 30-day comment period. We want to take the opportunity to thank TCEQ for listening to EPA and the community and reopening the comment period.

Taking this action helps to create relationships with the community that assist TCEQ in building trust through meaningful engagement with those most impacted by permitting decisions. Community engagement in an area such as Manchester should be enhanced and extended when possible. The goal of community engagement is to ensure that the people most affected by the permit have input into the decisions that will impact their lives. As you are aware, state permitting authorities have discretion to provide comment periods longer than the minimum 30 days, to hold additional public hearings, and to provide notification through additional means (such as website postings or direct email and conventional mail).

EPA is taking this opportunity to provide comments on the proposed permits. Our comments are primarily focused on deficiencies in the NSR permit that were found when we granted on claims in the title V petition for the title V permit associated with this facility. Title V permit O1381 incorporates NSR permit 2501A and PSD permit PSDTX767M2. TCEQ has not responded to the EPA Order, and EPA understands that TCEQ will need to make revisions to this NSR permit in order to address some of the objections in the Order. The comments attached reiterate the deficiencies previously identified.

We are committed to working with the TCEQ to ensure that the final permit is consistent with applicable new source review requirements, the EPA-approved Texas air permitting program, and all requirements of federal law. If you have questions or wish to discuss this further, please feel free to contact Aimee Wilson, Texas Permit Coordinator at (214) 665-7596. Thank you for your cooperation.

Sincerely, CYNTHIA KALERI

Digitally signed by CYNTHIA KALERI DN: c=US, o=U.S. Government, ou=Environmental Protection Agency, cn=CYNTHIA KALERI, 0.9.2342,19200300.100.1.1=68001003655411 Date: 2023.03.13 17:29:31 -05'00'

Cynthia J. Kaleri Air Permits Section Manager

Enclosure

ENCLOSURE EPA COMMENTS ON NSR 2501A/PSDTX767M2

Incorporation of PBRs into NSR Permit 2501A

The renewal and amendment application for permit 2501A indicates that a number of PBRs are being consolidated, partially consolidated, or incorporated by reference into the NSR permit. The TCEQ website already shows that the PBRs being consolidated have already been cancelled. TCEQ is reminded that it should not preemptively void or cancel permits before the permitting action has been completed.

Some of the PBRs being consolidated were all authorized within a short period of time (less than 18 months). Did Valero or TCEQ review the PBR actions to see if their emissions should be considered in aggregate for purposes of evaluating against the 5 TPY VOC limit when evaluating Federal NSR in a severe ozone nonattainment area? In addition, can TCEQ confirm that a state Best Available Control Technology (BACT) analysis was conducted for each individual PBR authorization that was consolidated into the NSR permit? If a state BACT analysis was conducted, please provide the rationale accepted by TCEQ for <u>each consolidated PBR/unit</u>. For example, application Section 6 identifies that "BACT of the heaters was demonstrated during the last permit modification." Can TCEQ explain the BACT analysis associated with the last permit modification, specifically explaining how the proposed emission factors presented in Table A-2 (e.g., 0.1 lb/MMBtu for NOx) are considered BACT when the TCEQ's Tier I BACT for heaters < 40 MMBtu is significantly lower?

MSS Limits Appearing to Relax Federally Enforceable Emission Limits

NSR Permit 2501A contains MSS limits that would exceed the emission limits of applicable NSPS and NESHAP for the FCCU. TCEQ has not explained in responding to commenters previously on this issue on how they are applying the MSS limits at SC 13. The limits specified in the applicable NSPS and NESHAP are not to be superseded or relaxed. TCEQ should clarify the intent of the MSS emission limits and indicate if the facility is authorized to operate at those limits.

Generally speaking, the original BACT analysis should have included emissions for all periods of operation. Therefore, if emissions during planned MSS activities are higher than emissions during routine, steady-state operation, then EPA considers the addition to the permit of such alternative emission limitations during planned MSS activities as a reopening of the original BACT or LAER determination. Planned MSS emissions should have been included in the PTE and subject to all applicable PSD and NNSR requirements, including public participation, BACT, and air quality analysis, at the time of the original permit issuance. Reconciliations to correct terms and conditions in PSD/NNSR permits, including adding or revising requirements for planned MSS activities, should undergo the same process as the original PSD/NNSR permit. This process would include a BACT and/or Lowest Achievable Control Technology (LAER) review, an air quality impact analyses, and public participation requirements for all sources¹.

¹ May 21, 2008 letter from Jeff Robinson to Richard Hyde at TCEQ. <u>https://www.epa.gov/sites/default/files/2015-07/documents/tceqssm.pdf</u> and See also 42 U.S.C. §§ 7475, 7503 (Clean Air Act requirements for PSD and major NSR permits, respectively)

Compliance with NSPS and NESHAP Requirements for a Flare Management Plan

NSPS Subpart Ja and NESHAP Subpart CC regulations require Valero to develop and implement a flare management plan. These standards require the plan to include operational requirements. For instance, one of the elements of the plan required by NSPS subpart Ja are procedures to minimize or eliminate discharge to the flare during the planned startup and shutdown of the refinery process units. 40 C.F.R. § 60.103a(5). Because of these applicable requirements, it would be advisable that the flare management plan be attached to the NSR permit. However, TCEQ must also ensure that the plan does not redact emission limitations or standards, including operational requirements and limitations that assure compliance with applicable requirements.

Monitoring Requirements for the Hourly and Annual PM limits for the Refinery's FCCU

EPA notes that the sufficiency of monitoring is a context-specific and fact-specific inquiry conducted on a case-by-case basis. With respect to PM emissions, TCEQ previously identified in its TV RTC that the emissions for the FCCU are "calculated based on the stack test emission factors (lb PM/1,000 lb coke-burn) and actual coke-burn data (lb/hr)." The NSR permit neither identifies the emission factor nor the equations that are to be used to demonstrate compliance with the permit limits. Further, the permit does not require any new stack tests or stack tests at any interval sufficient to assure compliance and to determine an appropriate emission factor. The permit record fails to justify the use of emissions factors derived from a stack test that was conducted over a decade ago to predict current emissions. TCEQ must evaluate whether the monitoring based on an emission factor from a 2008 stack test is sufficient to assure compliance with the PM_{2.5} and PM₁₀ limits found in the MAERT of NSR Permit 2501A. If TCEQ concludes that no further stack testing is needed, TCEQ must explain in the record how the FCCU emissions have not changed since 2008 and how the emission characteristics measured in 2008 are not expected to change over the term of the Permit in order to conclude that periodic stack testing is not required. Alternatively, if the emissions characteristics are likely to change over time, TCEQ must amend the permit to require periodic stack testing. Further, TCEQ must amend the Permit to require the use of the emission factors from the most recent stack test and ensure the calculations used to determine compliance are made part of the permit.

Monitoring Requirements Cannot Ensure Compliance with the Hourly and Annual Limits for the Refinery's Flare

TCEQ has previously identified in its RTC for the title V permit that subpart Ja requires the installation of continuous H2S and total sulfur monitors and that these monitors are being used to demonstrate compliance with H2S and SO2 hourly emission limits. However, the Permit does not state that the monitors are being used to demonstrate compliance with the H2S and SO2 limits for Flares 30FL1 and 30FL6 in the MAERT for NSR Permit No. 2501A, nor does the Permit explain how compliance calculations are done. To the extent that TCEQ is relying on other preexisting requirements such as subpart Ja to demonstrate compliance with the hourly or annual H2S and SO2 limits found in the MAERT for Flares 30FL1 and 30FL6, the Permit must clearly state the connection between the NSPS requirements and these flare limits, and the permit record must explain how those requirements assure compliance with the H2S and SO2 flare limits.

The permit is also not clear on how compliance will be determined with VOC, NOx, and CO limits, including the destruction efficiencies that are being relied upon in the calculations. If it is necessary for Valero to assume destruction efficiencies to calculate emissions, those assumptions must be clearly stated in the Permit. The record is unclear as to whether the Permit assumes a 98 or 99 percent destruction efficiency. In addition, the record is unclear as to whether the permit contains adequate conditions and work practice standards to assure that Valero is meeting the 98 or 99 percent destruction efficiency. Finally, the permit record does not contain a justification for why the 98 or 99 percent destruction efficiency will assure compliance with the underlying VOC emission limit.

The permit is not clear as to whether the composition analyzers are measuring all VOCs in the waste gas or only a subset of the VOCs, and whether the flow monitors are measuring all gases including sweep and purge gases. The EPA anticipates that VOC emissions may be underestimated if the analyzers are not measuring all VOCs in the waste gas and/or the flow monitors are not measuring all gases, in which case the identified monitoring cannot ensure compliance with the hourly and annual VOC limits. The specifics are not clear in NSR Permit 2501A Special Condition 38.

The Permit needs to be revised to clarify how compliance is being determined for each pollutant; where continuous monitors are being used and how, the Permit must clearly state both equipment and protocol expectations to demonstrate compliance. Additionally, TCEQ must specify in the Permit which VOCs and what gas streams are being monitored, and exactly how monitoring results will be used to demonstrate compliance with the VOC emission limit. The EPA notes that other applicable requirements that require flare monitoring may provide the information, but then the applicable provisions need to be included in the permit as such. For example, 40 C.F.R. part 63, subpart CC, for which both flares are subject, requires Valero to conduct flare vent gas composition monitoring. *See* 40 C.F.R. § 63.670(j). The definition of flare vent gas under this provision includes all waste gas, portion of sweep gas not recovered, flare purge gas, and flare supplemental gas (but does not include pilot gas, total steam or assist air). 40 C.F.R. § 63.641. Subpart CC also requires Valero to install a flow monitoring system and allows that different flow monitoring methods may be used "provided that the flow rates of all gas streams that contribute to the flare vent gas are determined." 40 C.F.R. § 63.670(i).

Monitoring Requirements Cannot Ensure Compliance with the Hourly and Annual VOC limits for the DAF Unit

The Permit fails to contain monitoring sufficient to demonstrate compliance with the hourly and annual VOC emission rates for the DAF unit. TCEQ stated in its response to comments on the title V permit, that VOC emission rates are calculated based on continuous influent flow. However, TCEQ failed to identify where in the Permit there is a requirement to install and maintain a continuous influent flow monitor. Additionally, TCEQ did not provide an explanation for how the continuous influent flow monitor is used in conjunction with the monthly VOC concentrations to demonstrate compliance with the hourly and annual VOC emission limits or identify where this explanation could be found in the record. TCEQ also identified part 61, subpart FF as being applicable requirements, including test methods and calculation procedures, that may be relevant to this claim. However, TCEQ failed to explain how these requirements are connected to demonstrating compliance with the hourly and annual VOC emission limits. TCEQ should consider whether additional direct or parametric monitoring, such as hourly monitoring of throughput, would be necessary to assure ongoing compliance with the hourly VOC emission limits. To the extent that TCEQ is relying on monitoring requirements and/or sampling procedures in part 61, subpart FF, or another NSPS or NESHAP, to assure compliance with the hourly and annual VOC emissions limits for the DAF unit, TCEQ must clearly identify these provisions in the

Permit as requirements relative to the DAF unit. Further, TCEQ must amend the permit record to include the rationale to demonstrate that the monitoring, recordkeeping, and reporting is sufficient to assure compliance with the hourly and annual VOC emission limits.

Monitoring Requirements Cannot Ensure Compliance with the PM and Opacity Limits for Several of the Refinery's Boilers

TCEQ is relying upon an initial stack test to demonstrate compliance with the hourly and annual PM limits and annual visual opacity monitoring to demonstrate compliance with the continuous opacity limit. Regarding opacity, the EPA has historically found that biannual and quarterly Method 9 visual observations are inadequate to assure compliance with opacity limits that apply continuously. TCEQ has not provided any justification for why a single visual observation conducted annually would be sufficient to determine compliance with an opacity limit that applies at all times or how that single observation would yield reliable data from the relevant time period that is representative of the source's compliance with the permit. TCEQ references NSPS Db as also having applicable monitoring requirements that assure compliance with PM and opacity limits. To the extent that TCEQ is relying on the requirements of NSPS Db to demonstrate compliance with the PM limits found in NSR Permit 2501A, the Permit must clearly state this connection and the permit record must provide a basis for this connection.

Monitoring Requirements Cannot Ensure Compliance with Hourly and Annual VOC limits for Fugitive Emissions

It is unclear how Permit 2501A assures compliance with the hourly and annual VOC limits for fugitive emissions found in NSR Permit 2501A. NSR Permit 2501A Special Conditions 41, 42, and 45 identify some conditions relating to fugitive emissions. These conditions do not provide clarification on how the VOC emissions are calculated. Condition 41 cites requirements for a leak detection and repair program and does contain calculations for determining VOC emissions; further, it is limited only to components on a delay of repair list, not to all components likely to leak. Conditions 42 and 45 provide additional monitoring requirements but either do not include VOC emissions or are limited to the subset of piping and components that require repairs. TCEQ needs to verify and then identify monitoring and testing requirements to demonstrate compliance with the hourly and annual fugitive VOC emission limits in permit 2501A.

Monitoring Requirements Cannot Ensure Compliance with Hourly and Annual PM and VOC Limits for the Atmospheric Tower Heater

Permit 2501A does not specify any monitoring or calculation methodology associated with the hourly and annual VOC and PM limits associated with the Atmospheric Tower Heater (EPN 23BC201). While NSR Permit 2501A Special Condition Nos. 7, and 62 contain requirements for the heater, these conditions do not contain information necessary to demonstrate how compliance with the VOC and PM limits, particularly the hourly and annual limits, is achieved. Special Condition 7 does contain requirements specific to the heaters, such as limiting fuel types used and opacity emissions at Special Condition 8, but contains no explanation for how those requirements correlate to compliance with the PM and VOC limits. Lastly, Special Condition 62 requires that NOx, CO, and O2 CEMS be installed but does not explain if and how those units are being used to assure compliance with PM and VOC limits. The EPA notes that in the permit record, Valero stated that "[a]ctual flow meter data, Fo factor and AP-42 emission factors for PM and VOC are being used for MAERT compliance demonstration."

Project File² at 8. If these calculations are being used to demonstrate compliance, then the manner in which this information is used must be specified in the Permit.

Monitoring Requirements Cannot Ensure Compliance with Hourly and Annual Limits for the Refinery's Tanks

Permit 2501A contains two monitoring provisions that specify how Valero is to calculate emissions for the tanks. The first of these methods uses the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks." *See* NSR Permit 2501A Special Condition 230.G. This condition does not provide sufficient information to consider the guidance document properly incorporated by reference for the following two reasons. The permit condition includes the title but does not include a date of the publication to ensure the correct version is being used. The Permit also does not identify what calculations or sections of the guidance are applicable to the Facility.

The next monitoring provision requires Valero to calculate MSS emissions for the tanks using methods described in AP-42 and "the permit application." *See* NSR Permit 2501A Special Condition 48.F(4). The Permit's reference to "methods described in the permit application"-without specifically identifying the application document, including the type of application, date of application, and/or location of specific provisions in the application (*e.g.*, page number) is insufficient to properly incorporate this application material by reference. Without information explaining how the Facility is calculating VOC emissions for the tanks, the EPA is unable to determine if the selected monitoring is sufficient to demonstrate compliance with the Permitted emission limits.

Monitoring Requirements Cannot Ensure Compliance with Hourly and Annual PM10 Limits for the Refinery's Cooling Towers

Permit 2501A is unclear regarding the monitoring of PM from the cooling towers. The Permit requires that the cooling towers be analyzed for particulate emissions by sampling for TDS. See NSR Permit 2501A Special Condition 29.D. However, the Permit does not explain what the correlation is between the measured TDS or its correlated conductivity, and the hourly PM10 limits. For instance, the Permit does not include any emission factors, assumptions or calculations that could be used to determine PM10 emissions. TCEQ must revise the Permit to include monitoring sufficient to demonstrate compliance with the hourly and annual PM10 emission limits for the cooling towers. The justification for this monitoring must be included in the permit record. If TCEQ is relying on other applicable requirements to demonstrate compliance with these limits, then that must be clarified in the Permit. The EPA notes that in the permit record, Valero stated that "process water flow data (obtained from the flow monitor ...), TDS Measurements (direct sampling required by 2501A), liquid drift factors (from manufacturer, shown on 2501A, inspection required by 2501A) are used to calculate PM, with PM tpy = PM Emission Factor (lb/kgal) x Recirculation Rate (kgal/min) x 60 (min/hr) x 24 (hr/day) x nos (day/yr) x 1/2,000 (lb/ton). This calculation methodology is described in the permit application (implicitly included in the draft SOP)." Project File³ at 8. If these calculations are being used to demonstrate compliance with hourly and annual PM10 limits, then this calculation methodology should be specified in the NSR Permit and the location of the calculation method needs to be clearly identified in the Permit as well.

² This document is accessible via "TCEQ Records Online" at *https://www.tceq.texas.gov/agency/data* under Primary ID 1381 and Content ID 5768895.

³ This document is accessible via "TCEQ Records Online" at *https://www.tceq.texas.gov/agency/data* under Primary ID 1381 and Content ID 5768895.

Consideration of Environmental Justice

EPA Region 6 has conducted an analysis using EPA's EJScreen to assess key demographic and environmental indicators within a five-kilometer radius of the Valero Houston Refinery. This analysis shows a total population of approximately 98,000 residents within a five-kilometer radius of the facility, of which approximately 94% are people of color and 53% are low income. In addition, the EPA reviewed the EJScreen EJ Indices, which combine certain demographic indicators with 12 environmental indicators. The results show that 11 of the 12 EJ Indices in this five-kilometer area exceed the 80th percentile in the State of Texas, with six of the 12 EJ Indices exceeding the 90th percentile. In addition, EPA used the AirToxScreen Mapping Tool to assess the cancer risk for the community. This analysis shows that the Manchester community has a total risk of 50 per million. The greatest risk comes from formaldehyde which accounts for 46.6% of the toxic emissions. The tool shows that the Valero Houston Refinery is the largest emitter of toxic emissions in the census tract that includes both the refinery and the Manchester community. This tool shows that the Houston Refinery released 33 tons of hydrogen cyanide, 15.6 tons of hexane, and 9.3 tons of benzene in 2017, just to name a few of the toxic emissions released by the refinery.

Tools to address EJ concerns are being developed not just by EPA, but also by various state partners across EPA regions. In order to fully assess equity considerations for overburdened communities during the permitting process, EPA believes that an EJ analysis may include input received from the community, an evaluation of existing environmental data, use of known demographic information, and other relevant information as much as possible. We encourage TCEQ to screen permitting actions for EJ and civil rights concerns early in the process by utilizing EJScreen and from knowledge of the impacted area. This screening will indicate whether a permitting decision has the potential to contribute to significant public health or environmental impacts, if the community may be particularly vulnerable to impacts from the proposed permit, and whether the community is already disproportionately impacted either by public health or environmental burdens. A sound screening practice will also provide important information as to whether there are residents of the affected community who could be disproportionately subjected to adverse health, environmental and/or quality of life impacts on the basis of race, color, or national origin (including LEP status). TCEQ should take into consideration other permitted facilities in the area, including whether these facilities are major or minor sources of pollution and contribute to community risk. An area with an above average number of sources, especially if those sources are large or in close proximity to residents, is a sign of concern.

Finally, EPA notes that civil rights regulations prohibit state, local or other entities that receive federal financial assistance, either directly or indirectly from EPA (i.e., "recipients" of federal funds) from taking actions that are intentionally discriminatory as well as practices that have an unjustified discriminatory effect, including on the bases of race, color, or national origin. EJ and civil rights compliance are complementary. Integrating environmental justice in decision-making and ensuring compliance with civil rights laws can, together, address the strong correlation between the distribution of environmental burdens and benefits and the racial and ethnic composition, as well as income level, of communities. EPA is committed to advancing environmental justice and incorporating equity considerations into all aspects of our work. One of these aspects includes assessing and considering environmental justice and civil rights issues raised in permitting decisions that may have adverse and disproportionate impacts on communities already overburdened by pollution. EPA welcomes TCEQ's partnership in this important effort.

Because of the environmental conditions already facing this community, and the potential for disproportionate impacts based on race, national origin, or other protected class, the impacts related to the facility may raise civil rights concerns. It is important that TCEQ assess its obligations under civil rights laws and policies. As a recipient of federal financial assistance from EPA, TCEQ must ensure that no person is excluded from participation in, denied the benefit of, or subjected to discrimination based on race, color, national origin (including limited English proficiency), age, disability or sex, under its programs or activities, consistent with title VI of the Civil Rights Act and other federal civil rights laws.