



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

May 18, 2023

Mr. Cory Chism, Director
Office of Air
Texas Commission on Environmental Quality (MC 122)
Post Office Box 13087
Austin, Texas 78711-3087

Re: Objection to Title V Permit No. O1426
Equistar Chemicals, LP. Equistar Channelview Facility
Harris County, Texas

Dear Mr. Chism:

This letter is in response to the Texas Commission on Environmental Quality submittal to our office containing the proposed renewal of the title V permit for the Equistar Channelview Facility permit referenced above. The United States Environmental Protection Agency has a 45-day review period which began on April 4, 2023 and ends on May 19, 2023. We have reviewed the TCEQ's proposed title V permit action and Statement of Basis. In accordance with 40 CFR § 70.8(c) and 42 U.S.C. § 7661d(b)(1), EPA is objecting to the proposed permitting action. Section 505(b)(1) of the federal Clean Air Act requires EPA to object to the issuance of a proposed title V permit during its 45-day review period if EPA determines that the permit is not in compliance with applicable requirements of the Act or requirements under 40 CFR Part 70. The enclosure to this letter provides the specific reasons for each objection and a description of the terms and conditions that the permit must include to respond to the objections.

Section 505(c) of the Act and 40 CFR § 70.8(c)(4) provide that if the permitting authority fails, within 90 days of the date of the objection, to submit a permit revised to address the objections, then EPA will issue or deny the permit in accordance with the requirements of 40 CFR Part 71. Because the State must respond to our objection within 90 days, we suggest that the revised permit be submitted with sufficient advance notice so that any outstanding objection issues may be resolved prior to the expiration of the 90-day period.

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 Equistar Channelview Facility. This analysis shows a total population of approximately 33,937 residents within a five-kilometer radius of the facility, of which approximately 38% are low income and 28% have less than a high school education. The air toxics cancer risk (lifetime risk per million) is 62, whereas the state risk is on average 31. In addition, the EPA reviewed the EJScreen EJ Indices, which combine certain demographic indicators with 12 environmental indicators. The results show that 8 of the 12 EJ Indices in this five-kilometer radius area exceed the 80th percentile in the State of Texas, with 2 of the 12 EJ Indices exceeding the 90th percentile.

The NSPS and NESHAP implement CAA section 111(b) and are issued for categories of sources which EPA has listed because they cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. The primary purpose of the NSPS is to attain and maintain ambient air quality by ensuring that the best demonstrated emission control technologies are installed as industrial infrastructure is modernized. Under the NESHAP, EPA must review the technology-based standards and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less frequently than every 8 years, pursuant to CAA section 112(d)(6). Under the residual risk review, EPA must evaluate the risk to public health remaining after application of the technology-based standards and revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. Therefore, EPA has added specific requirements to various subparts of regulations addressing the use of a flare as a control device. For example, in the NESHAP for Refineries at 40 CFR Part 63, Subpart CC, EPA requires additional operational limits and monitoring for flares beyond what is in 40 CFR. §§ 60.18 and 63.11(b). Using flares to control emissions of HAPs to reduce the exposure to air toxics is important in impacted communities. Flares are also used to control VOCs. Since VOCs are precursors Ozone formation and Harris County is classified as Severe for Ozone non-attainment, it is important that VOC emissions are accounted for properly.

The Equistar Channelview facility reported emissions in 2021 of 732 tons of VOCs, 1,109 tons of NOx, and total HAPs of 189 tons. HAP emissions are also known as air toxic as many are known or suspected to cause cancer and other serious health effects. VOCs are precursors to the formation of ground level ozone and thus contribute to exceedances of the NAAQS for ozone in the HGB area. EJ communities are most impacted by air toxics and ozone and therefore it is important that TCEQ take what actions they can to ensure permit holders are accounting for their flare emissions properly versus simply assuming flare destruction efficiency will be achieved at all times. Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma. When inhaled, ozone can damage the lungs. Relatively low amounts of ozone can cause chest pain, coughing, shortness of breath, and lung irritation. EPA utilized the CDC PLACES mapping and data tool to better understand the health impacts that ground level ozone would have on the community in the census tracts nearest the Channelview facility. This data shows that the prevalence of asthma among adults is 9.0% to 10.1%, while the U.S. average is 9.2%. The prevalence of coronary heart disease was 6.4% in the census tract for the Channelview facility which is greater than the U.S. average of 5.5%. Therefore, enforceable requirements for DRE from flares to ensure that the vulnerable communities are protected are important.

Tools to address EJ concerns have been and continue to be developed by EPA to assist states and stakeholders in evaluating environmental justice. In order to fully assess equity considerations for overburdened communities during the permitting process, EPA believes that an EJ analysis should 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 concerns and to consider potential compliance issues related to civil rights of the communities potentially impacted early in the permitting process by utilizing EJScreen and 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 income, national origin (including LEP status), or other demographic factors. 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, the EPA notes that civil rights regulations prohibit state, local, or other entities that receive federal financial assistance, either directly or indirectly from EPA (recipients) 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. The title v process can allow public participation to serve as a motivating factor for applying closer scrutiny to a title v source's compliance with applicable CAA requirements. Communities can use the title v process to help ensure that each title v permit contains all of a source's applicable requirements, and other conditions necessary to assure the source's compliance with those requirements. When TCEQ responds to this EPA objection, please consider utilizing some form of enhanced public outreach to notify the public of the Executive Director's response to comments and opportunity to petition the EPA to object to the proposed permit.

We are committed to working with the TCEQ to ensure that the final title V permit is consistent with all applicable title V permitting requirements and the EPA approved Texas title V air permitting program. If you have questions or wish to discuss this further, please contact Cynthia Kaleri, Air Permits Section Supervisor at (214) 665-6772, or Aimee Wilson, Texas Permit Coordinator at (214) 665-7596. Thank you for your cooperation.

Sincerely,

David F. Garcia, P.E.
Director
Air & Radiation Division

Enclosure

cc: Equistar Chemicals, LP

ENCLOSURE

EPA Objections to TCEQ Title V Permit O1426

*EPA views monitoring, recordkeeping, and reporting adequacy in New Source Review (NSR) permits that are incorporated by reference into a title V permit to be part of the title V permitting process and will therefore review whether a title V permit contains adequate monitoring, recordkeeping, and reporting provisions sufficient to assure compliance with the terms and conditions established in the preconstruction permit. The statutory obligations to ensure that each title V permit contains “enforceable emission limitations and standards” supported by “monitoring . . . requirements to assure compliance with the permit terms and conditions,” 42 U.S.C. § 7661c(a), (c), apply independently from and in addition to the underlying regulations and permit actions that give rise to the emission limits and standards that are included in a title V permit.” See *South Louisiana Methanol Order* at 10; *Yuhuang II Order* at 7-8; *PaciCorp-Hunter Order* at 16, 17, 18, 18 n.33, 19; *Big River Steel Order* at 17, 17 n.30, 19 n.32, 20. Therefore, regardless of the monitoring, recordkeeping, and reporting initially associated with a minor NSR permit or Permit by Rule (PBR), TCEQ has a statutory obligation independent of the process of issuing those permits to evaluate monitoring, recordkeeping, and reporting in the title V permitting process to ensure that these terms are sufficient to assure compliance with all applicable requirements and title V permit terms. *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008); see *Motiva Order* at 25-26.*

- 1. Objection for Failure to Identify Specific Applicable Requirements under the National Emission Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR Part 63.** The Applicable Requirements Summary table shows that the Equistar Channelview Facility is subject to emission limitations/standards or equipment specification requirements of NESHAP Subparts YY (EMACT) and FFFF (MON). However, the Applicable Requirements Summary table gives only a high-level citations to the applicable NESHAPs. The Applicable Requirements table does not list any specific requirements for the emission units identified that ensure enforceable limits are identified for monitoring and testing, recordkeeping, or reporting requirements. Therefore, pursuant to 40 CFR § 70.8(c)(1), the United States Environmental Protection Agency (EPA) objects to the issuance of the Title V permit because the Title V permit fails to identify the specific emission limitations and standards, including those operational requirements that assure compliance with 40 CFR Part 63 Subparts YY and FFFF, as required by 40 CFR 70.6(a)(1). The Title V permit should contain references that are detailed enough that the manner in which the referenced requirements apply to the facility are clear and is not reasonably subject to misinterpretation. See *In the Matter of Tesoro Refining, Order on Petition No. IX-2004-06* (March 15, 2005) at 8; see also White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program, 34-38 (March 5, 1996). In the case of the Equistar Channelview Facility permit, the permit does not contain enough information or detailed enough citations to determine how the specific requirements of the NESHAPs apply to the facility.

EPA notes that flares OP1, OP2, and East Plant Flare are subject to an Alternative Method of Compliance (AMOC) No. 157 that was issued on December 30, 2020. It is unclear how the requirements in the AMOC are impacted by recent revisions to the EMACT and MON or the Consent Decree issued by the EPA on October 13, 2021. In responding to this objection, TCEQ should revise the Equistar Channelview Facility Title V permit to include the specific emission limitations and standards applicable to each emission unit subject to 40 CFR Part 63 Subparts YY

and FFFF. TCEQ should also include the specific monitoring and testing, recordkeeping, and reporting requirements applicable to the affected units along with a reference to the compliance method that will be used to ensure compliance with all applicable requirements in the Title V permit.

2. Objection for Failure to Identify Specific Applicable Requirements for the New Source Performance Standards (NSPS) of 40 CFR Part 60, and the NESHAP of 40 CFR Part 61.

Underlying NSR permits 2933, PSDTX1270, and N140M1 indicates that the facilities shall comply with NSPS Subparts D and Ka at Special Condition 3. Special Condition 4 indicates that the facilities shall comply with NESHAP Subpart Y. EPA finds that the title V permit lacks any applicable requirements for NSPS Subparts D and Ka and NESHAP Subpart Y. There are no references for 40 CFR Part 60 Subpart D in the title V permit. The only reference to 40 CFR Part 60 Subpart Ka in the title V permit are located in the permit shield. Similarly, EPA finds that the title V permit only contains applicable requirements for 40 CFR Part 61 Subpart Y in the permit shield. TCEQ should determine if the source is subject to these NSPS and NESHAP requirements and update the NSR and title V permits accordingly.

EPA objects to the issuance of the Title V permit because the Title V permit fails to identify the emission units subject to the specific emission limitations and standards, including those operational requirements that assure compliance with 40 CFR Part 60 Subparts D, Ka, and Part 61, Subpart Y, as required by 40 CFR 70.6(a)(1). The Title V permit should contain references that are detailed enough that the manner in which the referenced material applies to the facility is clear and is not reasonably subject to misinterpretation.

Under title V of the CAA, the EPA's part 70 regulations, and TCEQ's EPA-approved title V program rules, every title V permit must include all applicable requirements that apply to a source, as well as any permit terms necessary to assure compliance with these requirements. E.g., 42 U.S.C. § 7661c(a)¹. The CAA requirement to include all applicable requirements (including NSPS regulations) in a title V permit can be satisfied using IBR in certain circumstances. See, e.g., White Paper Number 2 at 40 (explaining how IBR can satisfy the requirements of CAA § 504). The Title V permit should contain references that are detailed enough that the manner in which the referenced material applies to the facility is clear and is not reasonably subject to misinterpretation. See *In the Matter of Tesoro Refining, Order on Petition No. IX-2004-06* (March 15, 2005) at 8; see also White Paper Number 2 for Improved Implementation of The Part 70 Operating Permits Program, 34-38 (March 5, 1996). Text from TCEQ's EPA-approved title V regulations is arguably more specific than language found in 40 CFR 70.6(a)(1); however, the underlying principle is the same and explicitly requires citation to the appropriate applicable requirements. 30 Tex. Admin. Code § 122.142(b)(2)(B), requires Title V permits to include "the specific regulatory citations in each applicable requirement ... identifying the emission limitations and standards; and ... the monitoring, recordkeeping, reporting, and testing requirements associated with the emission limitations and standards ... sufficient to ensure compliance with the permit."

¹ CAA section 504(a) requires the following: "Each permit issued under this subchapter shall include enforceable emission limitations and standards, . . . and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan." Id; see also 40 C.F.R. § 70.6(a)(1) ("Each permit issued under this part shall include the following elements: (1) Emissions limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance.")

In the case of the Equistar permit, the permit does not contain enough information or detailed enough citations to determine how the specific requirements of the NSPS and NESHAP requirements apply to the facility. In responding to this objection, TCEQ should revise the Equistar title V permit to identify the emission units and include the specific emission limitations and standards applicable to each emission unit subject to 40 CFR Part 60 Subparts D, Ka, and Part 61, Subpart Y. TCEQ should also include the specific monitoring and testing, recordkeeping, and reporting requirements applicable to the relevant emission units.

- 3. Inadequate Monitoring for Flares.** As you are aware from petition orders for other TCEQ title V permits², EPA has discovered that meeting the requirements of 40 CFR §§ 60.18 and 63.11(b) does not always account for certain problems that can reduce combustion efficiency, such as those caused by excess steam or air assistance to the flare. Steam- and air-assisted flares for certain waste gas streams are susceptible to performance problems that may reduce VOC destruction efficiency below 98%. EPA seeks clarification on a few items in an effort to determine if the draft permit requires sufficient monitoring to ensure compliance with the assumed destruction efficiencies and the related lb/hr and TPY emission rates. Equistar has five steam-assisted flares that are covered by various permits; OP1 Flare (EPN 38E01) authorized by permits 1768, PSDTX1272, and N142M1; East Plant Flare (EPN 17E01) is authorized by permits 2128 and N280; Methanol Flares (EPNs EMEOHFLARE and EMEOHFLR2) and East Plant Flare³ (EPN 17E01) are authorized by permit numbers 8125, PSDTX1280M1, and N144; and OP2 Flare (EPN 48E01) is authorized by permits 2933, PSDTX1270, and N140M1; and OP1 Flare4 (38E01) is authorized by permits 3130A, N236, and PSDTX1484. These flares are all covered by a consent decree. The NSR permits for these flares do not specify what the destruction efficiency is for each flare. Each NSR permit does contain additional monitoring requirements as required by the consent decree and these requirements are intended to assure compliance with a 98% destruction efficiency. If Equistar is claiming a greater destruction efficiency, TCEQ needs to identify the specific provisions that ensure compliance with any destruction efficiency above 98% at all times.
- 4. Objection for Failure to Include Adequate Monitoring for PBRs.** It is TCEQ's responsibility, as the title V permitting authority, to ensure that the title V permit "set[s] forth" monitoring sufficient to assure compliance with all applicable requirements. 42 U.S.C. § 7661c(c); see id. § 7661c(a); 40 C.F.R. § 70.6(a), (a)(3), (c); 30 TAC 122.142(c). EPA supports TCEQ's efforts to incorporate PBRs into the title V permit in a manner that clearly identifies each registration and the emission unit(s) to which it applies through the use of the PBR Supplemental Table. EPA finds that the permit lacks sufficient monitoring to assure compliance with emission limitations and operational limits. More detailed monitoring information is needed in the PBR Supplemental Table for this permit. EPA had a copy of the renewal application dated May 14, 2021 for review and all comments related to the PBR supplemental table are based on a review of this version of the application. If a revised application was submitted to TCEQ, EPA did not receive a copy from the applicant. The supplemental table included in the May 2021 application only included monitoring for claimed (not registered) PBRs. The goal of this supplemental table is to explicitly incorporate monitoring/recordkeeping

2 See *In the Matter of BP Amoco Chemical Company*, Order on Petition No. VI-2017-6 (July 20, 2021) at 19-25

3 The East Plant Flare (EPN 17E01) is authorized by two separate permits.

4 The OP1 Flare (EPN 38E01) is authorized by three separate permits. It appears that permits 3130A, N236, and PSDTX1484 and 83799 authorize the MSS emissions from the flare. Routine emissions from this flare are authorized by permits 1768, PSDTX1272, and N142M1.

requirements and reduce ambiguity with respect to how emissions are calculated and how compliance is determined. Table D of the PBR Supplemental Table is intended to include monitoring for both registered and claimed PBRs.

When TCEQ relies on Table D to incorporate additional monitoring requirements, the monitoring and recordkeeping terms must be sufficient to assure compliance with emission limitations and operational requirements. When records are identified as being maintained, it would be practical and necessary to include a frequency for the recordkeeping. Table D for Equistar contains very simplistic monitoring that does not establish a practically enforceable permit limit or condition. The monitoring requirements are vague without specifying what exactly is being monitored, at what frequency, and how that information is used to determine the emissions. The table should be updated to indicate how the monitoring is to be performed, the frequency for performing any monitoring, and specify what emission factors are being used (if applicable) and the calculation methodology for determining the emissions. TCEQ must require Equistar to revise the PBR Supplemental table to include information adequate to assure compliance with emission limits and operational limits that are imposed by the PBRs.

5. Objection for Failure to Properly Identify All Emission Units. The title V permit appears to be missing emission units from the Applicable Requirements Summary Table and the NSR Authorization References by Emissions Unit table.

The title V permit also does not appear to include the following emission units:

- OP1SMLTank22 authorized by PBR Registration 110688
- ECUSMLTK38 authorized by PBR Registration 14033
- MIPTK3109 authorized by PBR Registration 146626 (emission unit is identified in the title V permit, but does not include this PBR authorization)

The proposed title V permit fails to meet the requirements of CAA § 504(a) requiring that “(e)ach permit issued under this subchapter shall include enforceable emission limitations and standards, . . . and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.” TCEQ’s definition of “applicable requirement” (found at 30 TAC § 122.10(2)) includes an extensive list of federal and state provisions. Minor NSR permits, including standard permits and permits by rule (PBRs) are included in TCEQ’s definition of applicable requirement and are applicable requirements as defined under 40 CFR § 70.2. TCEQ should verify if the PBRs listed above need to be added to the title V permit or if the PBRs have been consolidated by incorporation into an NSR permit and then TCEQ should update the title V permit as necessary.

6. Objection for Failure to Include all Applicable Requirements. EPA reviewed the PBR Supplemental Table that identified all claimed PBRs; several claimed PBRs appear to be omitted from title V permit O1426 (identified below by PBR rule number and emission unit):

- Claimed PBRs absent from the title V permit :
 - ECUCT1702B – 106.371
 - MEOSMLTK05 – 106.472
 - MEOSMLTK06 – 106.472 and 106.371

- MEOSMLTK07 – 106.472 and 106.371
 - MSMDM2814 – 106.472
- Registered PBRs absent from the title V permit:
 - 148101
 - 150493
 - 150810
 - 151917
 - 162742
 - 76017

It is not clear that the Equistar title V permit currently includes or incorporates all applicable requirements for the facility, as required by the CAA, the EPA's regulations, TCEQ's regulations, the agreements underlying the EPA's approval of IBR in Texas, and the EPA's longstanding position concerning IBR. Pursuant to 40 CFR § 70.8(c)(1), EPA objects to the issuance of the Equistar title V permit since it is not in compliance with the requirements of CAA § 504(a) and 40 CFR § 70.6(a)(1) & (3).