

FEDERAL OPERATING PERMIT - TECHNICAL REVIEW SUMMARY

SITE OPERATING PERMIT (SOP) RENEWAL

Permit #:	01235	Company:	Chevron Phillips Chemical Company, LP
Project #:	34827	Site:	Port Arthur Facility
Regulated Entity #:	RN100209857	Application Area:	Chevron Phillips Port Arthur Plant
Region:	10	Customer #:	CN600303614
NAICS Code:	325110	County:	Jefferson
Permit Reviewer:	Jasmine Yuan, Ph.D., P.E.	NAICS Name:	Petrochemical Manufacturing

SITE INFORMATION

Physical Location: 2001 South Gulfway Dr
Nearest City: Port Arthur
Major Pollutants: CO, HAPS, NOX, PM, SO2, VOC
Additional FOPs: None

PROJECT SUMMARY

Chevron Phillips Chemical Company, LP owns and operates Chevron Phillips Port Arthur Plant, which is a petrochemical manufacturing facility and a major source of emissions. It is subject to 30 TAC Chapter 122 and holds a Federal Operating Permit (FOP) which was last renewed on August 29, 2018 (Permit # O1235).

A timely renewal application was received by TCEQ on February 23, 2023. The forms OP-1, OP-2, OP-REQ1, OP-PBR SUP, OP-ACPS, and OP-CRO1 were submitted by the applicant to accomplish this project. The application did not request any changes to the units' applicability, permit shields, and monitoring. However, applicable requirements were updated for multiple units based on rule amendments as well as through application updates and working draft permit comments.

This permit has an updated Appendix B for NSR 21101/PSDTX1248M1/GHGPSDTX229 issued on April 5, 2024. Please note that the project associated with the GHG permit/NSR modifications have not yet been constructed. The applicability and units associated with those modifications will be added in future project action.

PROCESS DESCRIPTION

The Port Arthur Plant manufactures specialty petrochemicals from feedstocks. Specifically, process units at the plant produce ethylene and cyclohexane, which in turn, is sold to other chemical manufacturing plants to produce consumer products. This plant manufactures these products, by-products, and intermediates through distillation, reactions, and blending. Reactions taking place in the process units may be of chemical nature or may also include heating and pressurization or vacuum production. Plant utility equipment plays a role in the various processes. These include heaters, water separators, wastewater systems, flares for pollution abatement, etc.

TECHNICAL REVIEW

Permit Content Summary

1. Was Periodic Monitoring (PM) required and included in the permit?..... Yes
2. Was Compliance Assurance Monitoring (CAM) required and included in the permit?..... Yes
3. Was case-by-case PM or CAM included in the permit?..... Yes
4. Was a permit shield requested?..... Yes
5. If a permit shield was requested, was any permit shield request denied?..... No
6. Identify if the following are applicable for this project:
 - (a) Manually-built applicable requirements..... Yes
 - (b) Customized Special Terms and Conditions..... Yes
 - (c) Manual changes to the IMS-generated applicable requirements..... Yes
 - (d) Alternate means of compliance for any emission unit/source at the site..... Yes
7. Is the site subject to the requirements of 40 CFR Part 72 (Acid Rain Permit)?..... No

8. Did the applicant's review/comments on the working draft permit result in changes to the permit content?.....Yes
9. Will the draft permit be sent to public notice with unresolved issues (i.e., disagreements with applicant)?..... No

Permit reviewer notes:

PM and CAM:

- Existing PM option (PM-P-001) for units GRPFUR02 (Index R1111), and GRPFUR03 (Index R1111) was updated to PM option PM-P-033.
- Unit E-01A-1544 (Index R1111) now has a flowrate greater than 100,000 acfm, making it subject to 111.111(a)(1)(C) instead of 111.111(a)(1)(A). Existing PM option PM-P-029 was updated to PM option PM-P-033. Moreover, the unit is subject to 30 TAC Chapter 111 nonagricultural process PM monitoring. Applicant proposed case-by-case PM. TCEQ Technical Specialist Carolyn Maus reviewed it and approved it.
- All other existing PM options were retained. There is no case-by-case PM.
- CAM was removed from unit E-17-HDR for Chapter 115, Vent Gas Controls.
- Retained case-by-case CAM for unit FGHDR (index R5121-3, R5121-4, R5121-7, and R5121-8); unit T-2000 (index R5131-1); and unit V-309 (index R5142-1 and R5142-2). Index R5131-2 was removed from unit T-2000 so that CAM is no longer present.
- Retained existing CAM options for units E-24-HDR (index R5121-1 and R5121-2); E-40-HDR (index R5121-1 and R5121-2); and FGHDR (index R5121-1, R5121-10, R5121-2, R5121-5, R5121-6, and R5121-9).

Permit Shields:

- Reviewed and retained existing permit shields.
- No new permit shields were added.

Manual Builds and Manual Changes, Customized Terms, Alternate Means of Compliance:

- Retained manual build for MACT YY for multiple units and manual changes to IMS-generated requirements. They are mainly for units with Index No. -YY. These were additional operating scenarios for the flares and control device to comply with MACT YY instead of 60.18 and 63.11(b) (correlates to existing NSPS A scenarios and MACT A scenarios).
- Retained manual changes to IMS-generated requirements for E-24-HDR and E-40-HDR (Index R5121-1-AMOC144 and R5121-2-AMOC144) for Chapter 115, Vent Gas Controls as well as for FA-124 and XV-9 (Index R5112-AMOC144) for Chapter 115, Storage of VOCs. The citations in the RRT for alternative compliance are minimal because it is not possible to predict which requirements will still be used, so typically these scenarios would need additional periodic monitoring. However, in project 30632 the applicant indicated which of the normal citations were still applicable during these scenarios. Since monitoring requirements from the rule were included in the citations that the applicant had requested to add back, these scenarios do not need additional periodic monitoring.
- New manual builds for MACT YY were added to replace high-level requirements for a heat exchange system (E-137-CT), process vents (E-17-HDR, E-24-HDR, E40-HDR, FA-129), storage tanks (T-2176, T-2177, T-2158), decoking operations associated with cracking furnaces (GRPFUR01, GRP-FUR02), and fugitive equipment (FUGITIVES). The citations provided by the applicant were reviewed and approved (with adjustments) by technical specialist Carolyn Maus in an email dated October 31, 2023. In this initial review, there was an additional unit XV-9 for which process vent citations were approved, but the applicant corrected the unit type in WDP comments, described below.
- Retained customized term and condition (IMS term A.001.G) which specifies that MACT A, F, G, H, YY, ZZZZ, and DDDDD are incorporated by 30 TAC Chapter 113, Subchapter § 113.100, §113.110, §113.120, §113.130, §113.560, §113.1090, and §113.1130.
- Permit Term No. 23 (IMS term B.142) was customized to identify the current project number and submittal date on Form OP-PBRSUP.
- The alternate means of compliance (AMOC) authorized by EPA was retained and AMOC authorized by TCEQ was updated to most recent authorization (11/28/2022). The Unit IDs E-24-HDR and E-40-HDR comply with AMOC for 30 TAC Chapter 115, Vent Gas Controls, Index R5121-1-AMOC144 and R5121-2-AMOC144. Unit IDs DA-408 and DA-409 comply with AMOC for NSPS NNN. Unit IDs FA-124 and XV-9 comply with AMOC for 30 TAC Chapter 115, Storage of VOCs. Unit ID V-309 complies with AMOC for 30 TAC Chapter 115, Industrial Wastewater. The manually added "*** See Alternative Requirement" on all ARS table columns for the units including main standard, monitoring

and testing, recordkeeping, reporting columns were previously reviewed and approved by TCEQ technical specialist Ms. Carolyn Maus.

Applicant reviewed the working draft permit and provided comments on January 5, 2024. They requested to delete all operating scenarios with emissions controlled by F-17-FLARE. They also commented on the citations for the MACT YY manual build for XV-9 to clarify the unit was a storage tank. The citations were updated and approved by technical specialist Carolyn Maus in an email dated March 15, 2024. Due to multiple index numbers representing different operation scenarios, the Requirements Drivers were manually updated in IMS based on the information applicant provided. Four more engines authorized by PBRs were requested to be added and OP-PBR SUP was updated accordingly. The permit was updated based on applicant's comments; therefore, all comments were resolved.

Statement of Basis

A Statement of Basis sets forth the legal and factual basis for the applicable requirements that are included in the FOP. A Statement of Basis was prepared for this project and is included in the permit file.

Compliance History Review

- 1. In accordance with 30 TAC Chapter 60, the compliance history was reviewed on May 1, 2024.
 Site rating: 21.88 / Satisfactory Company rating: 6.63 / Satisfactory
 (High < 0.10; Satisfactory ≥ 0.10 and ≤ 55; Unsatisfactory > 55)
- 2. Has the permit changed on the basis of the compliance history or site/company rating?..... No

Site/Permit Area Compliance Status Review

- 1. Were there any out-of-compliance units listed on Form OP-ACPS?..... No
- 2. Is a compliance plan and schedule included in the permit?..... No

Permit reviewer notes:

TCEQ OP-ACPS compliance form submitted by applicant on 02/23/2023 indicated that the cooling tower (E-137-CT) was out of compliance due to VOC emission exceedance and lack of monitoring. The corrective action plan was included in the OP-ACPS.

During the review process, the source of the VOCs into the cooling water system has been investigated and potential sources were repaired. Enhanced preventative measures are being explored and implemented.

On 02/05/2024, applicant submitted updated OP-ACPS and indicated that all units are in compliance.

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Delinquent Fee Check

- 1. The delinquent fee check was performed on 07/02/2024.
- 2. Were there any delinquent fees owed? No

Public Notice Information

- 1. Were comments received from the applicant after the draft permit was mailed and before Public Notice was published?..... No
- 2. Was a revised draft permit or public notice authorization package (PN-Errata) sent for any reason?..... No
- 3. Publication date: 12/04/2024 Newspaper name: Port Arthur News
- 4. Was bilingual public notice published?..... Yes
 Publication date: 12/05/2024 Newspaper name: El Perico
- 5. Were comments received during Public Notice period?..... No
 - (a) Was a public hearing requested?..... No
 - (b) Was a public hearing held?..... No
 - (c) Was the public hearing request withdrawn?..... No
 - (d) Was permit content changed as a result of any public comments?..... No
- 6. Was re-publication necessary?..... No

Permit reviewer notes:

The CID was checked on 01/29/2025 to verify that no public comments were received.

EPA Review

- 1. Did EPA comment on the draft permit?..... No
- 2. Was a separate NOPP - Notice of Proposed Permit sent to the EPA?..... No
 If yes, did the EPA comment on the proposed permit?..... No
- 3. Were any changes made to the permit after the EPA Review Period?..... No
 If yes, were these changes made within the 60 day Public Petition Period?..... No

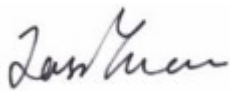
Permit reviewer notes:

The CID was checked on 01/29/2025 to verify that no EPA comments were received.

IMPORTANT MILESTONES

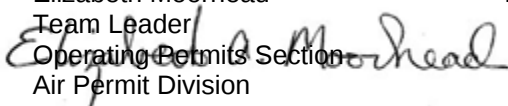
Milestone (Standard)	Start Date	End Date
Date Application Received by TCEQ	02/23/2023	
Date Project Received by Engineer	03/15/2023	
Technical Review Period	03/16/2023	05/02/2024
Working Draft Permit Reviewed by Applicant	11/16/2023	01/05/2024
Date PNAP/Draft Permit Mailed	11/13/2024	
Public Notice Comment Period	12/04/2024	01/03/2025
EPA Review Period	12/10/2024	01/24/2025
Date Sign Posting Certification Received	01/15/2025	

EFFECTIVE PERMIT ISSUANCE DATE: February 5, 2025



 Jasmine Yuan, Ph.D., P.E.
 Permit Reviewer
 Operating Permits Section
 Air Permits Division

01/30/2025
Date



 Elizabeth Moorhead
 Team Leader
 Operating Permits Section
 Air Permit Division

01/30/2025
Date

CONTACT INFORMATION

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