

Permit by Rule (PBR) Registration Technical Review

Company:	Chevron Phillips Chemical Company LP	Registration No.:	178570
Nearest City:	Pasadena	Project No.:	395311
County:	Harris	Project Type:	Revision
Project Reviewer:	John Ma	Regulated Entity No.:	RN102018322
Unit Name:	Pasadena Plastics Complex	Customer Reference No.:	CN600303614
PBR No(s).:	Revised: 106.261, 106.262	Project Received Date:	July 10, 2025
Physical Location:	1400 Jefferson		

Project Overview / Process Description

Chevron Phillips Chemical Company (Chevron Philips) owns and operates the Pasadena Plastics Complex located in Harris County. The Pasadena Plastics Complex (PPC) currently consists of three polyethylene units (PE6, PE7, and PE8) which are authorized by Permit No. 4437A and other air permits. This project should be incorporated into NSR 4437A at the next amendment or renewal.

Chevron Phillips originally authorized emissions which resulted from rerouting piping to transfer pellets produced by the PE-6 Unit to the pellet storage tanks. The company has submitted this revision project to authorize increased emissions from the flare (EPN 216) and additional PE-6 Pellet emissions (EPN PE6-PELLET) under 106.261 and 106.262. The revision reflects anticipated increases in flare emissions resulting from higher reactor operating rates. The flare is currently authorized under NSR 4437A. Emissions authorized under fugitive piping components (EPN 259) and the pellet loadout bag filter (EPN 219) will remain unchanged with this revision. This project also includes downstream impacts. Those impacts are included in the applicability analysis below.

Permit by Rule Requirements - 30 TAC Chapter 106

General Requirements

Registration Fee Reference No.:	Application fee: 774458 / 582EA000675931
Is this registration certified?	Yes
Is planned MSS included in the registration?	No
Are there affected NSR or Title V authorizations for the project?	Yes
<i>NSR and/or Title V authorizations:</i>	NSR 4437A, Title V O1315
If there are affected Title V authorizations, is monitoring being submitted as part of this registration?	No
Are there any upstream or downstream affects associated with this registration?	Yes
Are associated upstream/downstream emissions either included in the registration OR within current permitted limits with no changes to underlying air authorizations for the applicable units regarding BACT, health and environmental impacts, or other representations.	Yes
Are emissions for each PBR authorized facility less than the § 106.4(a)(1) limits?	Yes
Are total emissions from all sitewide PBR authorized facilities less than the § 106.4(a)(4) limits, OR has the site been subject to public notice requirements? Site has been through public notice under NSR 4437A.	Yes
Are there permit limits on using PBRs at the site?	No
Is the facility subject to the NO _x Mass Cap and Trade Program? Yes, the company will obtain the necessary credits.	
Is the facility in compliance with all other applicable rules and regulations?	Yes
Does the registration include an appropriate PBR workbook, and has the workbook been verified?	Yes

Notes:

Federal Applicability

Does this project trigger a PSD or Nonattainment review?	No
Does the Major NSR applicability analysis include all associated upstream and/or downstream emissions?	Yes
Are there any applicable standards under NSPS, NESHAP, or NESHAP for source categories (MACT)?	Yes
Applicable Standards: NSPS DDD / MACT FFFF	

Permit by Rule (PBR) Registration

Registration No. 178570
Page 2

Project No. 395311

Permit by Rule Requirements - Compliance Demonstrations

PBR 106.261/262 Facilities (Emission Limitations / Emission and Distance Limitations)

- The emission point(s) associated with the facilities or changes to facilities are located **at least 100ft** from the nearest off-site receptor.
- The total new or increase emissions will comply with the applicable hourly and annual emission limits as represented in the table below.
- n/a; no new emissions under 106.262(a)(4).
- There are no changes to or addition of any pollution abatement equipment.
- Visible emissions to the atmosphere, from any point or fugitive source, do not exceed 5.0 percent opacity in any six-minute period.
- This registration does not authorize construction or changes to a facility authorized under another section of this chapter or under standard permit.

Notes:

Project Emissions Increases

New / Modified Facilities (Registered) and Affected Facilities (Upstream / Downstream)			Project Emissions Increases (tpy)							
EPN	Source Name	Permit No.	VOC	NO _x	CO	PM	PM ₁₀	PM _{2.5}	SO ₂	Other
259	PE6 Piping Fugitives	4437A	<0.01	--	--	--	--	--	--	--
PE6-PELLET	PE6 Pellet Emissions	4437A	1.84	--	--	--	--	--	--	--
219	Pellet Loadout Bag Filter	4437A	--	--	--	0.11	0.11	0.11	--	--
216	Flare	4437A	2.37	0.51	4.34	--	--	--	0.09	--
Total Project Emissions Increases			4.83	0.51	4.34	0.11	0.11	0.11	0.09	--

Major NSR Applicability Analysis

	Pollutants					
	VOC	NO _x	CO	PM ₁₀	PM _{2.5}	SO ₂
Existing Site PTE	>40	>40	>100	>15	>10	>100
Project Increases	4.83	0.51	4.34	0.11	0.11	0.09
PSD Significant Emission Rate (tpy)	40	40	100	15	10	40
Exceeds PSD SER?	No	No	No	No	No	No

Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on:

July 17, 2025

Site rating / classification: **7.31 / Satisfactory**

Company rating / classification: **4.76 / Satisfactory**

Has any action occurred on the basis of the compliance history or rating?

No

Did the Regional Office provide site approval and confirm distances?

NA

106.261(a)(2) Emissions

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	Emission Threshold (lb/hr)	Emission Threshold (tpy)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)	Meets Threshold?
Ethylene	VOC		6	10	1.09E-01	7.59E-01	Yes
Propane	VOC		6	10	5.05E-03	2.48E-02	Yes
Propylene	VOC		6	10	4.24E-08	7.75E-05	Yes
Butane	VOC		6	10	2.17E+00	1.60E+00	Yes
Cyclohexane	VOC		6	10	2.16E-07	9.48E-07	Yes
Cyclohexene	VOC		6	10	3.57E-08	1.56E-07	Yes
Oxides of Nitrogen	Other		6	10	4.26E-01	5.07E-01	Yes

Permit by Rule (PBR) Registration

Registration No. 178570
Page 3

Project No. 395311

Carbon Monoxide	Other		6	10	3.65E+00	4.34E+00	Yes
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106.261(a)(3) Emissions

Chemical	Criteria Pollutant Designation	L Value (mg/m ³)	CAS No. (optional input)	Emission Threshold (lb/hr)	Emission Threshold (tpy)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)	Meets Threshold ?
Trans-2-Butene	VOC			1	4.38	1.23E-08	5.38E-08	Yes
1-Butene	VOC			1	4.38	1.76E-02	6.78E-02	Yes
Isobutylene	VOC			1	4.38	8.70E-08	3.81E-07	Yes
cis-2-Butene	VOC			1	4.38	1.23E-08	5.38E-08	Yes
n-Pentane	VOC	350		1	4.38	5.80E-08	2.54E-07	Yes
Isopentane	VOC			1	4.38	1.56E-08	6.84E-08	Yes
Hexene	VOC			1	4.38	2.54E-02	3.39E-01	Yes
1-Pentene	VOC			1	4.38	5.47E-08	2.39E-07	Yes
Polyethylene Particulate Matter	PM			1	4.38	4.49E-02	9.35E-03	Yes

106.262(a)(2) Distance

Distance to nearest off-plant receptor (feet):	100
K value:	326

106.262(a)(2) Emissions – Table 262

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m ³)	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
Heptane	VOC		350	1.07E+00	4.70E+00	2.68E-01	1.03E+00	Yes

106.262(a)(2) Emissions – 1997 ACGIH Guide

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m ³)	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
1,3-Butadiene	VOC	106-99-0	4.4	1.35E-02	5.91E-02	1.23E-08	5.38E-08	Yes
Hexane (n-Hexane)	VOC	110-54-3	176	5.40E-01	2.36E+00	2.32E-02	1.02E-01	Yes
1-Hexene	VOC	592-41-6	103	3.15E-01	1.38E+00	2.40E-01	9.00E-01	Yes

Total 106.261/262 Combined Emissions

	Total Hourly Emissions (lb/hr)	Total Annual Emissions (tpy)
Total VOC Emissions:	2.85	4.825
Total NOx Emissions:	0.426	0.507
Total CO Emissions:	3.65	4.34
Total PM Emissions:	0.04	0.01

Permit by Rule (PBR) Registration

Registration No. 178570
Page 4

Project No. 395311

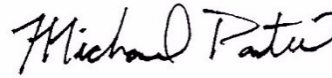
Emission Summary

EPN / Emission Source	VOC		NOx		CO		PM ₁₀		PM _{2.5}		SO ₂		Other	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
New Emissions														
216 / Flare	2.21	2.37	0.43	0.51	3.65	4.34								
Revised Emissions														
PE6-PELLET / PE6 Pellet Emissions	0.64	2.45												
Currently Authorized Emissions														
259 / PE6 Piping Fugitives	<0.01	<0.01												
219 / Pellet Loadout Bag Filter							0.04	0.01	0.04	0.01	0.04	0.01		
TOTAL EMISSIONS (TPY):		4.83		0.51		4.34		0.01		0.01		0.01		
MAXIMUM OPERATING SCHEDULE:			Hours/Day	24	Days/Week	7	Weeks/Year	52	Hours/Year	8,760				



Mr. John Ma
Permit Reviewer
Rule Registration Section

July 17, 2025
Date



Michael Partee, Manager
Rule Registrations Section
Air Permits Division

July 18, 2025
Date