

Permit by Rule (PBR) Registration Technical Review

Company:	Hardin Street Transportation LLC	Registration No.:	178020
Nearest City:	Pasadena	Project No.:	382446
County:	Harris	Project Type:	Initial
Project Reviewer:	Celine Rosales	Regulated Entity No.:	RN101851517
Unit Name:	Marathon Pipe Line Pasadena Station	Customer Reference No.:	CN604718387
PBR No(s).:	106.261, 106.476, 106.478	Project Received Date:	October 29, 2024
Physical Location:	431 Preston Ave		

Project Overview / Process Description

Hardin Street Transportation (HST) owns and operates the Marathon Pipe Line Pasadena Station facility in Harris County, Texas. The operations at the Pasadena Station are currently authorized under NSR Permit No. 4322A and Title V Permit No. O2773.

With this initial PBR registration, HST is proposing to authorize emissions associated with butane blending equipment and operations under PBRs §106.261, §106.476, and §106.478.

Liquefied butane will be unloaded from trucks (PBR 106.261) into pressurized bullet tanks (PBR 106.476), where the butane will be stored until blended with gasoline and gasoline blend stock. The butane will be transferred from the pressurized bullet tanks to station piping and then blended through with the use of a fixed piping system and a fixed static mixer. Prior to blending, a gasoline and gasoline blend stock sample will be taken from the pipeline and sent through an analyzer system. All analyzed samples will return to the station piping. Blending of the butane into gasoline and gasoline blend stock will increase the RVP, and blending operations will occur year-round. The new emission sources associated with this project include fugitive components (PBR 106.261), hose disconnects when unloading the butane from tanker trucks (PBR 106.261), and a 60-gal sample recovery tank on the sample system (PBR 106.478). There will be no emissions from the bullet tanks because their pressure will be maintained to prevent vapor loss to the atmosphere.

The butane blending project will not result in a change of emissions or change in representations for any currently permitted emission source at the Pasadena Terminal. Only the method of increasing the gasoline RVP will change with this project. The facility utilizes continuous RVP monitoring to ensure compliance with the gasoline RVP representations made in existing authorizations.

This PBR should be incorporated into the next amendment or renewal of the NSR Permit No. 4322A.

Permit by Rule Requirements - 30 TAC Chapter 106

General Requirements

Registration Fee Reference No.:	Application fee: 728156 / 582EA000631694		
Is this registration certified?	No		
Is planned MSS included in the registration?	No		
Are there affected NSR or Title V authorizations for the project?	Yes		
NSR and/or Title V authorizations:	NSR 4322A, Title V O2773		
If there are affected Title V authorizations, is monitoring being submitted as part of this registration?	Yes		
Are there any upstream or downstream affects associated with this registration?	No		
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.	NA		
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?	Yes, site has been to public notice for NSR 4322A.		
Are there permit limits on using PBRs at the site?	No		
Is the facility subject to the NO _x Mass Cap and Trade Program?	No NO _x emissions with this project.		

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

Permit by Rule Requirements - Compliance Demonstrations

PBR 106.261 Facilities (Emission Limitations)

- (a)(1) The facilities or changes will be located **>100 ft** from any off-site receptor.
- (a)(2) Total new or increased emissions authorized by this section are below 6.0 pounds per hour (lb/hr) and ten tons per year.
- (a)(3) NA – No 106.261(a)(3) chemicals are authorized under this registration.
- (a)(4) There will not be any changes or additions of any existing abatement equipment.
- (a)(5) Visible emissions will not exceed the 5.0 % opacity limit.
- (a)(6)-(7) Notification and all required documentation have been submitted.
- (b) This registration is not for authorization for construction or to change a facility authorized under another section of this chapter or under standard permit.

PBR 106.476 Pressurized Tanks or Tanks Vented to Control

The pressurized tank is sufficient at all times to prevent vapor or gas loss to the atmosphere.

Notes: The butane storage tank is designed to hold the butane at elevated pressure without losses or leakage, thus there will be zero butane emissions from the pressure vessel itself.

PBR 106.478 Storage Tank and Change of Service

Any fixed or floating roof storage tank, or change of service in any tank, used to store chemicals or mixtures of chemicals shown in Table 478 in paragraph (8) of this section is permitted by rule, provided that all of the following conditions of this section are met:

- (1) The tank shall be located **at least 500 feet** away from any recreational area or residence or other structure not occupied or used solely by the owner of the facility or the owner of the property upon which the facility is located.
- (2) The true vapor pressure of the compound to be stored shall be **less than 11.0 psia** at the maximum storage temperature.
- (3) For those compounds that have a true vapor pressure greater than 0.5 psia and less than 11.0 psia at the maximum storage temperature, any storage vessel larger than 40,000 gallons capacity shall be equipped with an internal floating cover or equivalent control. **(EPN: BB-TANK: <40,000 gallons)**
- (3)(A) An open top tank containing an external floating roof using double seal technology shall be an approved control alternative equivalent to an internal floating cover tank, provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal. Double seals having a vapor-mounted primary seal are an approved alternative for existing open top floating roof tanks undergoing a change of service.
- (3)(B) The floating cover or floating roof design shall incorporate sufficient flotation to conform to the requirements of American Petroleum Institute Code 650, Appendix C or an equivalent degree of flotation.
- (4) Compounds with a true vapor pressure of 0.5 psia or less at the maximum storage temperature may be stored in a fixed roof or cone roof tank which includes a submerged fill pipe or utilizes bottom loading. **(true vapor pressure: >0.5 psia)**
- (5) For fixed or cone roof tanks having no internal floating cover, all uninsulated tank exterior surfaces exposed to the sun shall be painted chalk **white** except where a dark color is necessary to help the tank absorb or retain heat in order to maintain the material in the tank in a liquid state.
- (6) Emissions shall be calculated by methods specified in Section 4.3 of the current edition of the United States Environmental

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Protection Agency Publication AP-42. This document may be obtained from the Superintendent of Documents, Washington D.C. 20402. It is Stock Number 0550000251-7, Volume I.

(7) Before construction begins, storage tanks of 25,000 gallons or greater capacity and located in a designated nonattainment area for ozone shall be registered with the commission's Office of Permitting, Remediation, and Registration in Austin using Form PI-7. The registration shall include a list of all tanks, calculated emissions for each carbon compound in tons per year for each tank, and a Table 7 of Form PI-2 for each different tank design. **(EPN: BB-TANK: <25,000 gallons)**

(8) Mixtures of the chemicals listed in Table 478 which contain more than a total of 1.0% by volume of all other chemicals not listed in Table 478 are not covered by this section.

Table 478

Approved Chemical List for Exemption from Permitting

A. Compounds of the following classes containing only atoms of carbon and hydrogen, not including aromatic compounds:

Paraffins. Examples: hexane, pentane, octane, isooctane.

Cycloparaffins (except cyclopentane). Examples: cyclohexane, methyl cyclopentane.

Olefins (except butadiene). Examples: octene, isoprene.

Cycloolefins. Examples: cyclopentadiene, cyclohexene.

B. Aromatic hydrocarbons only as follows: Ethyl benzene, styrene, xylenes.

C. Compounds of the following classes containing only atoms of carbon, hydrogen, and oxygen:

Alcohols (except allyl alcohol, isobutyl alcohol, and propargyl alcohol). Examples of approved alcohols: butyl alcohol, ethylene glycol.

Ethers (except vinyl ethers, glycol ethers, epoxides, and other ringed oxide compounds such as ketenes, furans, and pyrans). Examples of approved ethers: butyl ether, isopropyl ether.

Esters (except acrylates, methacrylates, allyl acetate, vinyl acetate, isopropyl formate). Examples of approved esters: ethyl acetate, butyl formate, methyl propionate.

Ketones (except allyl acetone, methyl ethyl ketone, methyl normal butyl ketone, acetophenone, and vinyl ketones). Examples of approved ketones: acetone, hexanone.

D. Additional chemicals:

Crude oil and refinery petroleum fractions (except pyrolysis naphthas and pyrolysis gasolines) **containing less than 10% benzene**. Examples of approved petroleum fractions: intermediate and finished gasolines, naphthas, alkylates, fluid catalytic cracking unit feed, fuel oils, distillates, other liquid fuels, and condensates.

Natural gas and crude oil condensates that do not emit sour gas.

E. Non-approved chemicals:

Other chemicals not specifically included within the classes defined above are not approved. Examples of non-approved chemicals: aromatics (other than those listed or those found in the crude oil and refinery liquids as listed); aldehydes; amines; amides; imines; nitriles; halogenated compounds; sulfonated chemicals; cyanates; organic acids; ethylene oxide (EtO), propylene oxide, and other oxygenated compounds not listed; organometallic compounds; pesticides.

Compliance History and Site Review

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

November 5, 2024

Site rating / classification: **0.53 / Satisfactory**

Company rating / classification:

0.53 / 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?
Refinery Petroleum Fractions (except for pyrolysis naphthas and pyrolysis gasoline) containing less than ten volume percent benzene	VOC		6	10	7.40E-02	3.23E-01	Yes

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Total 106.261 Combined Emissions

	Total Hourly Emissions (lb/hr)	Total Annual Emissions (tpy)
Total VOC Emissions:	7.40E-02	3.23E-01

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
BB-FUG / Fugitives (106.261)	0.07	0.32												
BB-TRUCK / Truck Loading (106.261)	<0.01	<0.01												
BB-TANK / Sample Recovery Tank (106.478)	0.08	0.04												
TOTAL EMISSIONS (TPY):	--	0.36	--	--	--	--	--	--	--	--	--	--	--	--
MAXIMUM OPERATING SCHEDULE: Hours/Year													8,760	

Celine Rosales

11/08/2024

Celine Rosales
Permit Reviewer
Rule Registration Section

Date

Michael Partee

11/08/2024

Michael Partee, Manager
Rule Registrations Section
Air Permits Division

Date