

Permit by Rule (PBR) Registration Technical Review

Company:	Space Exploration Technologies Corp.	Registration No.:	166086
Nearest City:	Brownsville	Project No.:	387212
County:	Cameron	Project Type:	Revision
Project Reviewer:	Clare Hubbell	Regulated Entity No.:	RN107697088
Unit Name:	SpaceX Texas Launch Site	Customer Reference No.:	CN602867657
PBR No(s).:	106.433	Project Received Date:	January 9, 2025
Physical Location:	1 Rocket Rd		

Project Overview / Process Description

Space Exploration Technologies Corporation (SpaceX) operates the SpaceX Starbase Production Site located in Brownsville, Cameron County. An additional coating area is authorized under PBR No. 163215, and the overall coating emissions are within PBR limits. Other PBRs at the site are separate from the operations in this PBR.

This project makes the following changes to the existing registration:

- Update unenclosed coating EPN/FIN GSESTACK-1/GSEPAINT-1 to EPN/FIN COATSW/COAT-SW) and update approximate location/distances from property lines and off property structures,
- Add new unenclosed coating EPN/FIN COAT-SS/COAT-SS,
- Add cleaning FIN at each EPN (FINs CLN-SW and CLN-SS),
- Update common coatings, usage amounts, and emission limits.

Surface coating for purposes of corrosion control of flight tooling, miscellaneous metal parts, and other equipment will be conducted at Sanchez West (EPN COAT-SW) and Sanchez South (EPN COAT-SS) at the Sanchez Lot of the Starbase Production Site. Coatings will be applied using spray guns, aerosol, brush, and rollers. To provide a conservative estimate, emissions have been calculated using atomized spray application for all coatings. Parts are allowed to air-dry, and equipment is cleaned (FINs CLN-SW and CLN-SS) using solvent or thinners in the same areas. Cleaning emissions are included in project totals.

Both of these unenclosed coating areas serve the same purpose and are used to coat the same kinds of equipment/parts in support of launch activities. They are also both located in the Sanchez area of the Starbase Production Site. Application methods and spray equipment will be similar. For these reasons, these two coating areas are included under one registration.

The coating areas are considered unenclosed. There are instances where both locations could have spray coating operations occur at the same time, however, this would be in rare instances. Both painting locations are in the same work area (Sanchez), and there would be coordination between the staff to ensure the use of coatings is limited to remain below the 6 lb/hr VOC limit averaged over any five-hour period. Cleaning and coating operations will not occur simultaneously.

SpaceX provided SDS for all new coatings that will be used. New coatings will be used at the Sanchez South area. The Sanchez West area will not be using any new coatings. SpaceX provided a sitewide PBR emission demonstration to show that sitewide emissions will be below the limits in 106.4. The sitewide coatings emissions are included in the 106.433 rule compliance demonstration below. This project will not affect other operations at the site.

Permit by Rule Requirements - 30 TAC Chapter 106

General Requirements

Registration Fee Reference No.:	Application fee: 740093 / 582EA000642903
Is this registration certified?	Yes
Is planned MSS included in the registration?	No
Are there affected NSR or Title V authorizations for the project?	No
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

Permit by Rule (PBR) Registration

Registration No. 166086
Page 2

Project No. 387212

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? Less than 106.4(a)(4) limits.	Yes
Are there permit limits on using PBRs at the site?	No
Is the facility in compliance with all other applicable rules and regulations?	Yes

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?	NA
Are there any applicable standards under NSPS, NESHAP, or NESHAP for source categories (MACT)?	No

Permit by Rule Requirements - Compliance Demonstrations

PBR 106.433 Surface Coat Facility

Surface coating or stripping facilities, excluding vehicle repair and refinishing shops, will meet the following conditions of this section to be permitted by rule.

(1) This section does not cover metalizing (spraying molten metal onto a surface to form a coating). However, this section does cover the use of coatings which contain metallic pigments.

(2) All facilities covered by this section at a site will implement good housekeeping procedures to minimize fugitive emissions, including the following.

(2)(A) All spills will be cleaned up immediately.

(2)(B) The booth or work area exhaust fans will be operating when cleaning spray guns and other equipment.

(2)(C) All new and used coatings and solvents will be stored in closed containers. All waste coatings and solvents will be removed from the site by an authorized disposal service or disposed of at a permitted on-site waste management facility.

(3) NA – No drying or curing ovens used.

(4) No add-on control equipment will be used to meet the emissions limits of this section. The total uncontrolled emissions from the coating materials (as applied) and cleanup solvents will not exceed the following for all operations:

(4)(A) 25 tons per year (tpy) of volatile organic compounds (VOC) and ten tpy of exempt solvents (ES) for all surface coating and stripping operations covered by section at a site; **10.92 tpy VOC*; 0 tpy ES**

(4)(B) 30 pounds per hour (lb/hr) of VOC and 5.0 lb/hr of exempt solvents for all surface coating and stripping operations covered by this section at a site; **20.53 lb/hr VOC*; 0 lb/hr ES**

(4)(C) if emissions are less than 0.25 lb/hr of VOC and/or exempt solvents, a facility is exempt from the remaining requirements of this section, including paragraphs (5)-(9) of this section.

(5) Opacity of visible emissions will not exceed 5.0%. Compliance will be determined by the United States Environmental Protection Agency Method 9 averaged over a six-minute period.

(6) NA – Coating operations are considered non-enclosed.

(7) For surface coating operations that are performed outdoors or in a non-enclosed work area, or for indoor operations that do not meet the conditions of paragraph (6) of this section, the following conditions apply.

(7)(A) No more than six lb/hr of VOC emissions, averaged over any five-hour period, and 500 pounds per week will be emitted at any time for all operations authorized by this paragraph. **6.00 lb/hr VOC; 500 lb/week VOC**

(7)(B) NA - Coatings applied with spray equipment will not contain more than 0.1% by weight of chromates, lead, cadmium, selenium, strontium, or cobalt.

(7)(C) Coating operations will be conducted at least 50 feet from the property line and at least 250 feet from any recreational area, residence, or other structure not occupied or used solely by the owner or operator of the facility or the owner of the property upon which the facility is located. **60 ft (property line); >3,500 ft (nearest receptor)**

(7)(D) Before construction of the facility begins, written site approval will be received from the appropriate regional office of the commission or any local program having jurisdiction.

(8) RE indicates that records indicated in subparagraphs (A-D) will be maintained at the plant site for the most recent 24 months and be made immediately available to the commission or any pollution control agency with jurisdiction.

(9) Before construction begins, the facility will be registered with the commission using **Form PI-7 CERT**.

*These are sitewide totals for all coating activities.

Permit by Rule (PBR) Registration

Registration No. 166086
Page 3

Project No. 387212

Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on: **January 15, 2025**

Site rating / classification: **0.00 / High** Company rating / classification: **1.65 / 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? **Yes**

Reviewed by: **Michael Anthony Flores, TCEQ Region 15** Date: **01/13/2025**

Emission Summary

EPN / Emission Source		VOC		NOx		PM		PM ₁₀		PM _{2.5}		SO ₂		HAPs	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
New Emissions															
COAT-SS	Coating – Sanchez South	6.00	3.00			5.28	2.64	1.67	2.64	0.28	2.64			6.00	3.00
	Cleaning Emissions	3.21	0.39												
Revised Emissions															
COAT-SW	Coating – Sanchez West	6.00	3.00			2.15	1.07	0.68	1.07	0.11	1.07			0.39	0.20
	Cleaning Emissions	3.21	0.39												
TOTAL EMISSIONS (TPY):			6.78				3.71		3.71		3.71				3.20
MAXIMUM OPERATING SCHEDULE: Hours/Year															8,760

Note: SpaceX confirms that surface coating operations will not exceed the limits of 106.433(7)(A). Cleaning and coating operations will not occur simultaneously.

Clare Hubbell

February 3, 2025

Ms. Clare Hubbell
Permit Reviewer
Rule Registrations Section

Date

Michael Partee

February 4, 2025

Mr. Michael Partee, Manager
Rule Registrations Section
Air Permits Division

Date