

## Permit by Rule (PBR) Registration Technical Review

<b>Company:</b>	Dragon Products, LLC	<b>Registration No.:</b>	177746
<b>Nearest City:</b>	San Angelo	<b>Project No.:</b>	380885
<b>County:</b>	Tom Green	<b>Project Type:</b>	Initial
<b>Project Reviewer:</b>	Jana Banigo	<b>Regulated Entity No.:</b>	RN102602307
<b>Unit Name:</b>	Dragon Products San Angelo	<b>Customer Reference No.:</b>	CN605249929
<b>PBR No(s).:</b>	106.227, 106.433, 106.452	<b>Project Received Date:</b>	October 1, 2024
<b>Physical Location:</b>	6738 US Highway 87 N		

### Project Overview / Process Description

The Dragon Products San Angelo facility manufactures storage tanks for use in the energy industry. The site is currently authorized under NSR Permit 74024 and PBR Permit 152895.

Historically, the site primarily produced fiberglass reinforced plastic (FRP) tanks for the oil and gas industry. The emissions from the FRP manufacturing, surface coating, clean-up operations, and the resin storage tanks were routed to a rotor concentrator, then routed to a Regenerative Thermal Oxidizer (RTO) [EPN OXSTK].

FRP products will no longer be manufactured onsite, therefore the previously authorized RTO [EPN: OXSTK] was permanently taken out of service. The following EPN's were also permanently renamed or removed:

- EPN: Blast (renamed to AB-N and AB-S)
- EPN: PNTFUG (removed)
- EPN: DSLTK1/ Diesel Tank 1 (removed)
- EPN: HEATERS-NG (removed)
- EPN: HEATERS-DSL (removed)

With this registration, Dragon Products LLC is proposing to consolidate the previously authorized outdoor coatings operations (authorized under PBR Permit 152895) into the pending registration and void NSR Permit 74024 and PBR Permit 152895.

The current sitewide operations include:

- Welding (authorized under PBR 106.227)
- Enclosed and outdoor surface coating (authorized under PBR 106.433 (6) and 106.433 (7))
- Enclosed abrasive blasting (authorized under PBR 106.452(1))

During the fabrication and assembly process metal tanks are formed and welded [EPN:WLDFUG] from carbon steel to customer specifications. The formed tanks are then taken into one of two enclosed abrasive blasting booths [EPN's: AB-N, AB-S] for surface preparation. Any decontamination (instrument air blow-down and non-gaseous activities only), sweeping, vacuuming or otherwise prepping of the tanks will all be performed inside of the blast booths.

After surface preparation, the interior and exterior of each tank is finished with a high-performance coating using HVLP spray equipment. The coatings and clean-up operations will primarily occur in Paint Booth 1 [EPN:PB1] and/or Paint Booth 2 [EPN:PB2], each booth is equipped with a natural gas fired heater. Coating and clean-up operations may also occur in two additional enclosed work areas [EPNs:WA1,WA2] if necessary. The coated parts and tanks will remain inside of the enclosed areas until the coating is dry.

Non-enclosed, manually applied touch up coating operations, DFT readings and spark testing will be completed at the west end of the primary paint building [EPN: WPBOUT].

A detailed process description and compliance demonstrations for PBR's 106.4, 106.227, 106.433, 106.452, including emission calculations, surface coating workbook, and other supporting documentation can be found in the public file.

### Permit by Rule Requirements - 30 TAC Chapter 106

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## General Requirements

Registration Fee Reference No.:	<b>Application fee: 723376 / 582EA000627334</b>
Is this registration certified?	<b>Yes</b>
Is planned MSS included in the registration?	<b>No</b>
Are there affected NSR or Title V authorizations for the project?	<b>Yes</b>
<i>NSR and/or Title V authorizations: NSR Permit 74024 will be voided upon issuance of this registration.</i>	
Are there any upstream or downstream affects associated with this registration?	<b>No</b>
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.	<b>NA</b>
Are emissions for each PBR authorized facility less than the § 106.4(a)(1) limits?	<b>Yes</b>
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? <b>All sitewide PBR authorized facilities less than the § 106.4(a)(4) limits.</b>	<b>Yes</b>
Are there permit limits on using PBRs at the site?	<b>No</b>
Is the facility in compliance with all other applicable rules and regulations?	<b>Yes</b>
Notes:	

## Federal Applicability

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

## Permit by Rule Requirements - Compliance Demonstrations

### PBR 106.227 Soldering, Brazing, Welding (EPN: WLDG1)

Brazing, soldering, or welding equipment, except those which emit 0.6 ton per year or more of lead, are permitted by rule.

Notes: The welding wire used to weld parts together does not contain lead.

### PBR 106.433 Surface Coat Facility (EPNs: PB1, PB2, WA1, WA2, WPBOUT)

- (1) Metalizing (spraying molten metal onto a surface to form a coating) will not be performed at the site.
- (2) RE indicates that all facilities covered by this section at the site will implement good housekeeping procedures to minimize fugitive emissions as required in subparagraphs (A-C) of this paragraph.
- (3) The heat capacity for the drying heaters in (EPNs: PB1, PB2) will not exceed 40 million British thermal units per hour. (**Actual: 2.25 MMBtu/hr**). Sweet natural gas will be used to power each heater.
- (4) RE indicates that no add-on controls will be used to meet the emission 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:
  - (A) The total annual VOC emission rate is < 25 tpy (**Actual: 19.99 tpy**). The total annual exempt solvent emission rate is < 10 tpy (**Actual: 9.63 tpy**).
  - (B) The total hourly VOC emission rate is <30 lb/hr (**Actual: 25.54**). The total hourly exempt solvent emission rate is <5.0 lb/hr (**Actual: 4.94 lb/hr**)\*
  - (C) The emissions are greater than 0.25 lb/hr of VOC and/or exempt solvents, therefore the facility must meet paragraphs (5)-(9) of this section.
- (5) Opacity of visible emissions will not exceed 5.0% as determined by EPA Method 9.
- (6) Surface coating operations for (EPNs: PB1, PB2, WA1, WA2) are performed in enclosed paint booths and or work areas:
  - (A) No more than six lb/hr of VOC emissions, averaged over any five-hour period and 500 pounds/week per booth or

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enclosed work area. **(Actual: 5.91 lb/hr and 484 lb/week – per booth)**

(B) A minimum face velocity at the intake opening of each booth (EPN: PB1, PB2, WA1, WA2) is  $\geq 100$  ft/min. **(Actual: 220 ft/min)**. Emissions will be exhausted through elevated stacks that extend at least 1.5 times the building height above ground level. **(Actual: 48 ft above ground level)**. All stacks will discharge vertically, rain protection will not restrict or obstruct vertical flow.

(C) Spraying operations, emissions of particulate matter (PM) will be controlled using a dry filter system with a 95% removal efficiency as documented by the manufacturer. **(Actual: 99.00 %)** The face velocity at the filter will not exceed 250 ft/min or that specified by the filter manufacturer, whichever is less. **(Actual: 125 ft/min)**. Filters will be replaced whenever the pressure drop across the filter no longer meets the manufacture's recommendation.

(7) Surface coating operations for (EPN: WPBOUT) are performed in a non-enclosed work area:

(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. **(Actual: 1.89 lb/hr and 162.00 lb/week)**

(B) N/A, sprayed coatings do not contain chromates, lead, cadmium, selenium, strontium or cobalt.

(C) Coating operations will be conducted at least 50 ft from the property line **(Actual: 394 ft)** and at least 250 feet from any recreational area **(Actual: 502 ft)** 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.

(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) RE submitted a PI-7 CERT.

**\*Note:** The maximum hourly ES emission rate for all coatings activities is 2.40 lb/hr, (0.60 lb/hr – each) and the maximum hourly ES emission rate for the sitewide cleaning activities is 4.94 lb/hr. The coatings and cleaning activities will not occur within the same hour.

## PBR 106.452 Dry Abrasive Cleaning (EPNs: AB-N, AB-S)

(1) The enclosed abrasive cleaning will occur within two enclosed booths.

(1)(A) the particulate matter emissions are evacuated through a fabric filter with a maximum filtering velocity of 4.0 feet per minute (ft/min) **(Actual: 2.4 ft/min)** with mechanical (pulse-jet) cleaning.

(1)(B) there are no visible fugitive emissions from the facility

(2)(A) N/A - No outdoor blasting activities will occur onsite

Notes:

## Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on: **October 17, 2024**

Site rating / classification: **0.00 / High** Company rating / classification: **0.00 / High**

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: **Mr. Omar Rodriguez, Region 8** Date: **October 9, 2024**

## Emission Summary

ESTIMATED EMISSIONS																
EPN / Emission Source	VOC		ES		PM		PM <sub>10 / 2.5</sub>		NOx		CO		SO <sub>2</sub>		HAPS	
	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
PB1 / Enclosed Booth 1	5.91	4.58	4.94	2.82	0.03	0.01	0.02	0.01	0.22	0.12	0.19	0.10	0.03	0.02	3.08	2.38
PB2 / Enclosed Booth 2	5.91	4.58	4.94	2.82	0.03	0.01	0.02	0.01	0.22	0.12	0.19	0.10	0.03	0.02	3.08	2.38
WA1 / Enclosed Work Area 1	5.91	4.57	4.94	1.17	0.03	<0.01	<0.01	<0.01	--	--	--	--	--	--	3.08	2.38
WA2 / Enclosed	5.91	4.57	4.94	1.17	0.03	<0.01	<0.01	<0.01	--	--	--	--	--	--	3.08	2.38

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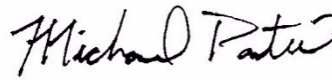
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Work Area 2																
WPBOUT / Touch-up Non-Enclosed	1.89	1.69	1.65	1.65	--	--	--	--	--	--	--	--	--	--	--	--
AB-N /Enclosed Blasting Booth 1	--	--	--	--	0.05	0.05	0.05	0.05	--	--	--	--	--	--	--	--
AB-S / Enclosed Blasting Booth 2	--	--	--	--	0.05	0.05	0.05	0.05	--	--	--	--	--	--	--	--
WLDG1/Welding	--	--	--	--	4.54	2.36	4.54	2.36	--	--	--	--	--	--	<0.01	<0.01
<b>TOTAL EMISSIONS (TPY):</b>		<b>19.99</b>		<b>9.63</b>		<b>2.48</b>		<b>2.48</b>		<b>0.24</b>		<b>0.20</b>		<b>0.04</b>		<b>9.52</b>
<b>MAXIMUM OPERATING SCHEDULE</b>	<b>Hours/Day</b>		10		<b>Days/Week</b>		6	<b>Weeks/Year</b>		52		<b>Hours/Year</b>		3,120		



November 8, 2024  
Date

Ms. Jana Banigo  
Permit Reviewer  
Rule Registration Section



November 8, 2024  
Date  
Michael Partee, Manager  
Rule Registrations Section  
Air Permits Division