# OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

### MEMORANDUM

### February 24, 2025

TO:	Lee Warden, P.E., Permits and Engineering Group Manager
THROUGH:	Richard Kienlen, P.E., Engineering Manager, New Source Permits Section
FROM:	Jennie Doan, E.I., Engineering Section, ROAT
SUBJECT:	Evaluation of Permit Application No. <b>2016-1146-O (M-1)</b> Paragon Industries, Inc. Paragon Industries (SIC 3371/NAICS 331210) Facility ID: 16741 Latitude: 35.98826°, Longitude: -96.032139° Section 4, Township 17N, Range 12E, Creek County, Oklahoma Directions: 3378 W. Highway 117, Sapulpa, OK

### SECTION I. INTRODUCTION

Paragon Industries, Inc. (Paragon) has applied for an individual minor source operating permit to operate two coating booths at their Paragon Industries facility. The facility currently operates under Permit No. 2016-1146-O, issued on September 5, 2017, and construction Permit No. 2016-1146-C (M-1), issued on October 27, 2023. On issuance, this permit will be a FESOP.

Based on the projected operations at this site, facility-wide emissions are estimated to be 0.60 TPY of NO<sub>X</sub>, 0.22 TPY of CO, 88.10 TPY of VOC, 10.10 TPY of PM<sub>10</sub>, and 4.46 TPY of HAPs, worst case. This facility, therefore, qualifies for a "synthetic minor" permit because the controlled emissions of each of the criteria pollutants are below the major source threshold of 100 TPY and the HAP emissions are below the 10 TPY threshold for a single HAP and below the 25 TPY threshold for any combination of HAPs.

### SECTION II. PROCESS DESCRIPTION

Steel coils are received at the Sapulpa plant for processing. The coils are roll formed into a tube, and then welded together by the High Frequency Electric Resistance Welding (ERW) process. Depending on customers' specifications, additional processing may occur such as beveling, threading, grooving, and fusion bonded epoxy coating.

Casing, sprinkler pipe, and most standard pipe will be coated in the two (2) paint booths (PB-1 and PB-2), where QuakerCoat products will be used. Before coating the pipe in PB-1 and PB-2, the pipe is heated to 100-125 degrees Fahrenheit using electric induction, and then is conveyed into the building that houses the Nordson Dry Filter Continuous Coater. The coater consists of a heated airless spray system, which is connected to a custom designed spray cabinet through which pipe is

Coating paint line 3 (PB-3) coats oil field casing pipe 4.5" - 9.625" in size. Pipe is manufactured in the "Mill", taken to the Paragon "Heat Treat 1" building for heat treatment, and transferred to an inspection facility by racks and conveyor. As the pipe exits the inspection building by conveyor, it enters the spray enclosure and is coated with one of three products. The coating enclosure has an exhaust system with particulate filters having 88.9% control efficiency.

Coating paint line 4 (PB-4) is proposed to be added. This line coats oil field casing pipe 4.5" - 9.625" in size. Pipe is manufactured in the "Mill", taken to the Paragon "Heat Treat 2" building for heat treatment, and transferred to an inspection facility by racks and conveyor. As the pipe exits the inspection building by conveyor, it enters the spray enclosure and will be coated with one of three products. This coating enclosure will have an exhaust system with particulate filters having an estimated efficiency of 88.9%, with a magnahelic gauge installed for measuring the pressure drop ensuring filters are changed out as required.

Over-sprayed material (liquid product) not deposited on the product falls to the bottom where it is collected in a sump. The material passes through a strainer, then a pump, and is recovered in the main material supply to be resprayed. The coater system includes dry filter exhaust zones created by entrance and exit booth filters with stack filters near the product entry and exit ports to minimize the escape of paint particles from the cabinet. Paint enters the system in 330-gallon totes, and the amount of coating is based on millage/thickness, per customer specifications.

The facility uses a fusion bonded epoxy coating (FBE-1) operation for line pipe products. The FBE powder coating is electrostatically charged and applied via automated spray guns in an enclosed booth. However, line pipe is sometimes processed without the additional FBE-1 coating process.

EU	Description	Capacity	Mfg./Const. Date
ENG-1	John Deere - 125REOJD Kohler Power System (SN: 2149664)	197-Нр	04/07
ENG-2	John Deere - 125REOJD Kohler Power System (SN: 2186277)	197-Нр	01/08
FBE-1	Fusion Bonded Epoxy Coating Line	N/A	2020 <sup>(1)</sup>
PB-1	Paint Booth 1 (21' W x 25' L x 16' H)	N/A	2015
PB-2	Paint Booth 2 (21' W x 25' L x 16' H)	N/A	2015
PB-3	Paint Booth 3 (3.5' W x 3' L x 4' H)	N/A	2023
PB-4	Paint Booth 3 (5.01' W x 1.71' L x 5' H)	N/A	2023
WELD-1	Welding (SAW, SMAW, ERW)	N/A	1981
FUG-1	Fugitive Chemical Usage	N/A	N/A
GTK-1	Horizontal Gasoline Tank	2,000 gal	$2022^{(2)}$
DTK-1	Horizontal Diesel Tank	2,000-gal	2022 <sup>(2)</sup>

### **SECTION III. EQUIPMENT**

EU	Description	Capacity	Mfg./Const. Date		
DTK-2	Horizontal Diesel Tank-off Road Diesel	2,000-gal	$2022^{(2)}$		
DTK-3	Horizontal Diesel Tank-on Road Diesel	2,000-gal	$2022^{(2)}$		
(1) 71					

<sup>1)</sup> The original FBE-1 constructed in 2015 was destroyed by a fire in 2019, and the new FBE-1 was constructed in 2020 and started operation in 2021.

<sup>(2)</sup> The storage tanks were replaced in 2022 and the sizes increased from 1,000 gal to 2,000 gal.

### SECTION IV. EMISSIONS

Unless otherwise stated, emissions are based on 8,760 hours per year of operation.

### **Emergency Engines**

Emissions from the emergency diesel-fired engines are based on the table below and 500 hours per year of emergency operation. The engines are certified by the US-EPA. Emergency engines' emissions are based on emission factors from manufacturer's data. Note that SO<sub>2</sub> and formaldehyde (H<sub>2</sub>CO) emissions are estimated using Table 3.3-1 and Table 3.3-2 of AP-42 (10/96) and 500 hpy of emergency operation. Emissions of SO<sub>2</sub> and H<sub>2</sub>CO from both engines are approximately 0.10 TPY and 0.00041 TPY, respectively.

Emission Factors for Engines					
Pollutant Emission Factor, g/hp-hr					
NO <sub>X</sub>	2.76				
СО	0.98				
VOC	0.112				
PM	0.115				
$SO_2$	2.05E-03 lb/hp-hr				
Formaldehyde	1.18E-03 lb/MMBTU				

Emergency Engines Emissions								
	N	<b>O</b> x	C	0	VC	)C	PN	Л
EU	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
ENG-1	1.20	0.30	0.43	0.11	0.05	0.01	0.05	0.01
ENG-2	1.20	0.30	0.43	0.11	0.05	0.01	0.05	0.01
Total	2.40	0.60	0.85	0.21	0.10	0.02	0.09	0.02

### **Emergency Engines' Emissions**

Welding

To be conservative, welding emissions are based on maximum emission factors from AP-42 (1/95), Chapter 12.19, and actual welding rod usage in 2015 extrapolated to 8,760 hours per year. There are  $PM_{10}$  and HAP emissions from the welding process.

Welding Process	Quantity	PM10 EmissionElectrode TypeFactor		n Potential PM <sub>10</sub> Emissions	
	lb/year		lb PM10/1,000 lb	lb/hr	TPY
Shielded Arc,					
Submerged Arc, &					
High Frequency	$26,229^{(1)}$	Varies	81.6	0.24	1.07
Electric Resistance					
(ERW)					
Total					1.07

Welding's PM Emissions

<sup>(1)</sup> Based on 11,210 lbs electrodes in 2015 and 3,744 hpy extrapolated to 8,760 hpy.

ЦАВ	Emission Factors	<b>Electrodes Consumed</b>	Emissions
ΠΑΓ	lb/10 <sup>3</sup> lb of Electrodes Consumed	lb/year	TPY
Chromium	25.3		0.33
Chromium (VI)	18.8		0.25
Cobalt	0.01	26 220	0.0001
Lead	1.62	20,229	0.021
Manganese	232		3.04
Nickel	17.1		0.22
	Total		3.86

### Welding's HAPs Emissions

### Coating (PB-1, PB-2, PB-3, PB-4)

Emissions for paint booths are based on VOC and PM content from SDS, annual throughput, and transfer efficiencies. Proposed permitted emissions are based on usage of 25,000 gallons of paint and 3,774 hpy of operation extrapolated to 8,760 hpy of operation. Estimated annual emissions of  $PM_{10}$  were assumed to be 70% transfer efficiency but increased to 85% because the overspray product is recovered to be resprayed, and 88.9% for control efficiency. No control is used for VOC emissions. All coating products listed below for coating operation are HAPs free. VOC and  $PM_{10}$  are based on worst case scenario.

	8			
<b>Coating Product</b>	EU	Throughput	VOC Content	PM Content
8		gal/yr	lb/gal	lb/gal
QuakerCoat 175	PB-1, PB-2	58,494	0.64	2.50
CF Black	PB-3, PB-4	58,293	0.04	2.39
QuakerCoat 106		59.404	0.64	2.50
Semi-Black	PB-1, PB-2	58,494	0.04	2.39
QuakerCoat 175		59.202	0.60	2.50
OTC	PB-3, PB-4	58,293	0.68	2.59
Fortech TechKote	PB-3, PB-4	58,293	0.20	5.67

**Coating Operation's VOC & PM Contents** 

	VOC		$PM_{10}$			
EU	Uncontrolled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
PB-1	4.27	18.72	2.59	11.36	0.29	1.25
PB-2	4.27	18.72	2.59	11.36	0.29	1.25
PB-3	4.53	19.82	5.66	24.79	0.62	2.73
PB-4	4.53	19.82	5.66	24.79	0.62	2.73
Total	17.60	77.08	16.50	72.30	1.82	7.96

<b>Coating's</b>	Emissions
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### Fusion Bonded Epoxy Coating (FBE-1)

A feed hopper mixes the powder paint with compressed air in a process called fluidizing. Fluidized powder is pumped from the hopper to the spray gun. An electrode, located at the tip of the spray gun, receives a high-voltage (30-100 kV) electrical charge from a power supply. The high-voltage creates an electrical field in front of the gun. As powder particles pass through the field, they become charged and are attracted to the grounded workpiece.

Parts to be powder coated are suspended inside or conveyed through the booth and sprayed with charged powder paints. Over-sprayed powder is contained within the booth enclosure and drawn into the primary filter cartridges by a centrifugal fan. Circulating air, now free of powder, is discharged through high-efficiency final filters into the plant as recycled air. The primary filter cartridges are periodically reverse-pulsed to remove the over-sprayed powder, which is then sieved, and supplied back to the guns to provide the most efficient material use.

The Valspar Pipeclad 2000/2040 powder coating product is comprised of 100% solids. Permitted emissions are based off of 1,500,000 pounds of product. Particulate emissions are controlled with primary and secondary filters, each with 99.9% efficiency. Emissions following reflect permitted usage rates.

EU	Usage	Uncontrolled PM Emissions	Controlled PM Emissions
	lb/yr	ТРҮ	ТРҮ
FBE-1	1,500,000	750	0.75

### **Emissions Parameters (FBE-1)**

### Fuel Tanks (GTK-1, DTK-1, DTK-2, DTK-3)

Paragon has three (3) diesel fuel tanks on-site used to distribute fuel to non-road vehicles and equipment used at the facility. Permitted throughput is based on highest actual throughput and 3,774 hours of operation extrapolated to 8,760 hours per year. Emissions of VOC from the storage tanks were estimated using AQD Storage Tank Calculation Tool, and gasoline (RVP 10) and No.2 fuel oil for diesel.

Parameter	GTK-1 Data	DTK-1, DTK-2 & DTK-3 Data (per tank)
Throughput, gal/yr	40,000	100,000
Liquid in Tank(s)	Gasoline	Diesel
Working/Breathing Method/Tool	AP-42	AP-42
Working/Breathing Emissions, TPY	0.23	< 0.01
Control Type	None	None
<b>Total Potential VOC Emissions, TPY</b>	0.23	<0.01

### **Parameters for Fuel Tanks (per tank)**

### Miscellaneous Chemical Emissions (FUG-1)

Permitted emissions are based off of highest actual usage and 3,774 hpy of operation extrapolated to 8,760 hpy of operation. All product contents (VOC, HAP, PM) are based off of the latest product safety data sheets. The inks shown below are used throughout the facility for stenciling pipes, as well as spray paint and solvents which are used facility-wide as well.

Miscenaneous i rouge Usage and Information (SDS)				
Product	Annual Usage	VOC	НАР	РМ
	gal/yr	lb/gal	lb/gal	lb/gal
Stencil Ink-Type D White Ink	1,044	4.52		
Stencil Ink-Type D Black Ink	232	5.48		
REA JET White Pigmented Ink	351	6.08	0.08	2.23
Saf-T-Gard Industrial Base 3	438	4.40	0.23	3.00
Rohper LSPR Gloss Red	1,221	4.36	0.89	
Methyl Ethyl Ketone	936	6.72		

### **Miscellaneous Product Usage and Information (SDS)**

Dreduct	VOC		HAP		PM10	
Product	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Stencil Ink-Type D White Ink	0.53	2.34				
Stencil Ink-Type D Black Ink	0.14	0.63				
REA JET White Pigmented Ink	0.24	1.06	0.003	0.01	0.09	0.39
Saf-T-Gard Industrial Base 3	0.22	0.96	0.01	0.05	0.15	0.65
Rohper LSPR Gloss Red	0.60	2.64	0.12	0.54		
Methyl Ethyl Ketone	0.71	3.12				
Total	2.44	10.75	0.14	0.60	0.24	1.04

### **Emissions from Miscellaneous Products**

### FACILITY-WIDE EMISSIONS

Emissions of HAP are below the major source threshold of 10 TPY for an individual HAP and 25 TPY of combined HAP. The permit includes caps on individual HAP emissions (9.99 TPY) and total HAP emissions (24.99 TPY).

EU	NOx	CO	VOC	PM10	SO <sub>2</sub>	HAPs
ENG-1	1.20	0.43	0.05	0.05	0.44	-
ENG-2	1.20	0.43	0.05	0.05	0.44	-
FBE-1	-	-	-	0.17	-	-
PB-1	-	-	4.27	0.29	-	-
PB-2	-	-	4.27	0.29	-	-
PB-3	-	-	4.53	0.62	-	-
PB-4	-	-	4.53	0.62	-	-
WELD-1	-	-	-	0.24	-	0.88
FUG-1	-	-	2.45	0.24	-	0.14
GTK-1	-	-	0.05	-	-	-
DTK-1	-	-	< 0.01	-	-	-
DTK-2	-	-	< 0.01	-	-	-
Totals	2.40	0.86	20.22	2.57	0.88	1.02

Facility-Wide Hourly Emissions (lb/hr)

### **Facility-Wide Annual Emissions (TPY)**

EU	NOx	CO	VOC	<b>PM</b> 10	SO <sub>2</sub>	HAPs
ENG-1	0.30	0.11	0.01	0.01	0.11	-
ENG-2	0.30	0.11	0.01	0.01	0.11	-
FBE-1	-	-	-	0.75	-	-
PB-1	-	-	18.72	1.25	-	-
PB-2	-	-	18.72	1.25	-	-
PB-3	-	-	19.82	2.73	-	-
PB-4	-	-	19.82	2.73	-	-
WELD-1	-	-	-	1.07	-	3.86
FUG-1	-	-	10.75	1.04	-	0.60
GTK-1	-	-	0.23	-	-	-
DTK-1	-	-	< 0.01	-	-	-
DTK-2	_	_	< 0.01	_	_	_
Totals	0.60	0.22	88.10	10.84	0.22	4.46

## Facility-Wide HAP Emissions

LIAD	Emissions		
HAF	TPY		
Chromium	0.33		
Chromium (VI)	0.25		
Cobalt	0.0001		
Lead	0.021		
Manganese	3.04		
Nickel	0.22		
Other HAPs	0.60		
Total	4.46		

### SECTION V. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable] Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable] This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the "Federal Regulations" section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable] Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable] Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Required annual information (Turn-Around Document) shall be provided to Air Quality by April 1<sup>st</sup> every year.

OAC 252:100-7 (Permits for Minor Facilities) [Applicable] This facility (with controls listed in this permit) qualifies as a synthetic minor source because the uncontrolled emissions have the potential to exceed 100 TPY for the criteria pollutant and uncontrolled Hazardous Air Pollutants (HAP) emissions do not have the potential to exceed 10 TPY for any one HAP and 25 TPY for any aggregate of HAP.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable] Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for mitigation, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable] Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

### OAC 252:100-19 (Particulate Matter (PM)) [Applicable] Section 19-4 regulates emissions of PM from new and existing fuel-burning equipment. Particulate emission limits are based on maximum design heat input rating, as described in Appendix C.

Appendix C specifies a PM emission limitation of 0.60 lb/MMBTU for all equipment with a heat input rating of 10 MMBTUH or less. For equipment with rated heat input greater than 10 but less

than 1,000 MMBTUH, the PM limit is calculated using the equation from OAC 252:100 Appendix C, which is listed below.

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### $E = 1.0428080X^{(-0.238561)}$

Where:

Where:

E = allowable total particulate matter emissions in pounds per MMBTH

X = the maximum heat input in MMBTU

For emergency engines, Table 3.3-1 of AP-42 (10/96) lists diesel-fired engine emissions to be 0.31 lbs/MMBtu, which shows all units to be in compliance.

EU	Heat Rate	Appendix C PM <sub>10</sub> Limitation	Potential PM10 Emissions
	MMBTUH	lb/MMBTU	lb/MMBTU
ENG-1	1.379	0.60	0.31
ENG-2	1.379	0.60	0.31

<u>Section 19-12</u> limits particulate emissions from new and existing directly fired fuel-burning units (and/or) emission points in an industrial process based on process weight rate, as specified in Appendix G.

 $E = 4.10P^{0.67}$ 

E = allowable total particulate matter emissions in pounds per hour

P =process weight rate in tons per hour (TPH)

EU	Annual	Usage	Hourly Rate	Subject?
	gal/yr	lb/yr	lb/hr	, v
FBE-1	-	1,500,000	171.23	Subject
PB-1	58,494	151,499.5	17.29	Exempted <sup>(1)</sup>
PB-2	58,494	151,499.5	17.29	Exempted
PB-3	58,293	330,521.3	37.73	Exempted
PB-4	58,293	330,521.3	37.73	Exempted
WELD-1	-	26,229	2.99	Exempted
FUG-1	789	2,096.7	0.24	Exempted

<sup>(1)</sup> Except FBE-1, all other operations listed in the table have a process rate less than 100 lb/hr, and therefore, these operations are exempted from this regulation.

EU	Process Rate	Appendix G Allowable Emission Limit	Potential PM Emission Rate	
	ТРН	lb/hr	lb/hr	
FBE-1	0.09	0.79	< 0.01	

Based on the current process rate and FBE-1's control efficiency, the potential PM emission rate does not exceed the Appendix G emission limit.

### OAC 252:100-25 (Visible Emissions and Particulates)

No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. The permit will require that fuel-burning units be fueled only with natural gas to ensure compliance with these requirements.

### OAC 252:100-29 (Fugitive Dust)

No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. Under normal operating conditions, this facility will not cause a problem in this area, therefore it is not necessary to require specific precautions to be taken.

### OAC 252:100-31 (Sulfur Compounds)

Part 2 limits the ambient air concentration of hydrogen sulfide (H<sub>2</sub>S) emissions from any facility to 0.2 ppmv (24-hour average) at standard conditions which is equivalent to 283  $\mu$ g/m<sup>3</sup>. Fuel-burning equipment fired with pipeline natural gas will not have the potential to exceed the H<sub>2</sub>S ambient air concentration limit.

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels the limit is 0.2 lb/MMBTU heat input, 3-hour average. AP-42(3/98), Table 1.4-2 lists the total SO<sub>2</sub> emissions for natural gas to be 0.6 lb/MMft<sup>3</sup> or about 0.0006 lb/MMBTU which is in compliance with this limitation. For liquid fuels the limit is 0.8 lb/MMBTU. All liquid fuels combusted at the facility are low-sulfur with a maximum sulfur content of 0.05 percent by weight. AP-42 (5/2010), Chapter 1.3, Table 1.3-1, gives an emission factor of 142\*S pound of SO<sub>2</sub> per 1,000 gallons, which is approximately 0.05 lb/MMBTU when S = 0.05% by weight sulfur in the fuel. This emission rate is in compliance with the limitation of 0.8 lb/MMBTU.

### OAC 252:100-33 (Nitrogen Oxides)

[Not Applicable] This subchapter limits NOx emissions from new fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NOx per MMBTU. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide)

[Not Applicable] None of the following affected processes are located at this facility: gray iron cupola, blast furnace, basic oxygen furnace, petroleum catalytic cracking unit, or petroleum catalytic reforming unit.

OAC 252:100-37 (Volatile Organic Compounds) [Parts 3 & 7 Applicable] Part 3 requires VOC storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. Paragon has one (1) 2,000-gallon gasoline tank which has a vapor pressure greater than 1.5 psia, and this tank is equipped with submerged fill pipe.

Part 5 limits the VOC content of coatings used in coating lines or operations.

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### [Applicable]

[Applicable]

[Applicable]

Coating Type	Definition	Limitation (lb-VOC/gal)
Alkyd primer	A chemical coating composed primarily of alkyd applied to a surface to provide a firm bond between the substrate and any additional coating	4.8
Vinyl	A chemical coating containing plasticized or unplasticized polymers and co-polymers of vinyl acetate, vinyl chloride, polyvinyl alcohols or their condensation products. The primary mode of cure is solvent evaporation.	6.0
Nitrocellulose lacquer (NC lacquer)	A chemical coating containing nitrocellulose and suitable resinous modifiers. The primary mode of cure is solvent evaporation.	6.4
Acrylics	A chemical coating containing polymers or co- polymers of acrylic or substitute acrylic acid in combination with resinous modifiers. The primary mode of cure is solvent evaporation.	6.0
Epoxies	A chemical coating containing epoxy groups and suitable chemical cross-linking agents. The primary mode of cure involves a chemical reaction between the epoxy and the cross-linking agent.	4.8
Maintenance finishes	A chemical coating that protects a given substrate from adverse chemical or physical conditions.	4.8
Custom products finish	A proprietary chemical coating designed for a specific customer and use.	6.5

Coating Type Limits (As Applied) from OAC 252:100-37-25

Coating Product	Coating Type	SDS's VOC Content lb/gal
QuakerCoat 175 CF Black	Acrylics	0.64
QuakerCoat 106 Semi-Black	Acrylics	0.64
QuakerCoat 175 OTC	Acrylics	0.68
Fortech TechKote	Acrylics	0.20
Stencil Ink-Type D White Ink	Vinyl	4.52
Stencil Ink-Type D Black Ink	Vinyl	5.48
REA JET White Pigmented Ink	NC lacquer	6.08
Saf-T-Gard Industrial Base 3	Vinyl	4.40
Rohper LSPR Gloss Red	Vinyl	4.36

The coating operations at this facility are subjected to this regulation. Based on the provided SDS, all the VOC contents in the coating products are below the VOC limitations listed under this regulation. Therefore, the coating operations at this facility comply with this regulation.

<u>Part 7</u> requires fuel-burning and refuse-burning equipment to be operated to minimize emissions of VOC. The fuel-burning equipment at this location (ENG-1 and ENG-2) is subject to this requirement.

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OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable] This subchapter regulates TAC that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained, unless a modification is approved by the Director. Since no AOC has been designated there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable] This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement.

### SECTION VI. FEDERAL REGULATIONS

### PSD, 40 CFR Part 52

Final total emissions are less than the threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY.

### NSPS, 40 CFR Part 60

<u>Subparts K, Ka, Kb</u>, VOL Storage Vessels. This subpart regulates hydrocarbon storage tanks larger than 19,813 gallons capacity for Subpart Kb and 40,000 gallons for Subparts K and Ka. All the storage tanks on-site were installed in 2010. The diesel storage tanks (DTK-1 and DTK-2) have capacities under 19,813 gallons; therefore, these tanks are not subject to this subpart. The gasoline storage tank (GTK-1) has a capacity under 19,813 gallons, and so, this tank is not subject to this subpart.

<u>Subpart TT</u>, (Standards of Performance for Metal Coil Surface Coating) applies to metal coil surface coating operations in facilities which commence construction, modification, or reconstruction after January 5, 1981. The provisions of this subpart apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously. At this facility the metal coils are received and formed, then potentially coated as individual pipes in the fusion bonded epoxy coating operation. Under Subpart TT, "metal coil surface coating operation" means the application system used to apply an organic coating to the surface of any continuous metal strip

[Subpart IIII Applicable]

[Not Applicable]

with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil. Therefore, this subpart is not applicable to this facility since the coating process performed at this facility does not fall under the definition of "metal coil surface coating operation."

Subpart IIII, Stationary Compression Ignition Internal Combustion Engines. The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) that are constructed (ordered) after July 11, 2005, and manufactured after April 1, 2006 (July 1, 2006, for fire pump engines).

CI Engines				
EU	HP	Serial #	Mfg. Date	
ENG-1	197	2149664	04/07	
ENG-2	197	2186277	01/08	

CI	Engines

### **Emergency Engine Emission Standards**

According to §60.4205(b), the 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants.

Per §60.4202(a)(2), for emergency engine with maximum engine greater than or equal to 50-HP must meet the Tier 2 or Tier 3 emission standards for new nonroad CI engines for same rated power as described in 40 CFR part 1039 Appendix I.

\$60.4209(a) requires emergency engine that does not meet the meet the standards applicable to nonemergency engines, listed under §60.4201(c), to equipped with non-resettable hour meter prior to startup of the engine.

§60.4201(a) requires manufacturer to certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines listed in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, and 40 CFR Part 1039, Appendix I, as applicable, for all pollutants, for the same maximum engine power. According 40 CFR Part 1039 Appendix I, the 2006 model and later engine with rated power  $130 \le kW \le 560$  must meet the Tier 3 emission standards, which are listed in the table below.

	$NO_X + NMHC$	СО	PM	
EU	g/kW-hr (g/hp-hr)	g/kW-hr (g/hp-hr)	g/kW-hr (g/hp-hr)	
ENG-1	4.0 (2.98)	3.5 (2.61)	0.20 (0.15)	
ENG-2	4.0 (2.98)	3.5 (2.61)	0.20 (0.15)	

Engines' Emission Standards

Both ENG-1 and ENG-2 are certified engines under certification number JDX-NRCI-08-03. Therefore, if these engines are installed and operated according to manufacturer's specifications, they comply with these emission standards.

Requirement	Compliance Demonstration				
Fuel	<ul> <li>Per §60.4207, diesel-fired engine must use diesel fuel meet requirements under §1090.305.</li> <li>§1090.305 ULSD Standards.</li> <li>a) Maximum sulfur content of 15 ppm by weigh</li> <li>b) Minimum cetane index of 40 or maximum aromatic content of 35 volume percent.</li> </ul>				
Other	Per §60.4208 (1), §60.4208 requirements do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.				
Monitoring	Per §60.4209(a), owner/operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, listed under §60.4201(c), owner/operator must install a non-resettable hour meter prior to startup of the engine. Per §60.4209(b), owner/operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204 (reduce PM emissions by 60%+ or limit to 0.15 g/kW-hr or 0.11 g/Hp-hr), the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.				
Operating/Compliance	<ul> <li>Per §60.4211, there is no time limit on use of engine in emergency situation.</li> <li>Per §60.4211(f) for owner/operator of an emergency stationary CI engine is allowed to operate up to 50 hrs/yr in non-emergency situations, but the 50 hours are counted toward the 100 hrs/yr provided for maintenance and testing.</li> <li>Per §60.4214(b), if the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner/ operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.</li> </ul>				
Testing	No testing is required if the owner/operator operate a certified engine.				

In addition to emission standards, these engines shall comply with following requirements.

### NESHAP, 40 CFR Part 63

[Subpart ZZZZ and CCCCCC Applicable]

<u>Subpart N</u>, (Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks), applies to all processing tanks in which chromium electroplating or chromium anodizing is performed. The facility does not perform any chromium electroplating or chromium anodizing.

<u>Subpart MMMM</u>, (Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products), applies only to major sources; therefore, this subpart will not apply since the facility is a minor source.

<u>Subpart ZZZZ</u>, Stationary Reciprocating Internal Combustion Engines (RICE). This subpart affects any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions. For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006. Owners and operators of new engines and reconstructed engines at area sources meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines).

All emergency engines were manufactured after June 12, 2006, and shall comply with this subpart by demonstrating compliance with NSPS Subpart IIII.

<u>Subpart CCCCCC</u>, Gasoline Dispensing Facilities. This subpart establishes emission limitations and management practices for HAP emitted from the loading of gasoline storage tanks at gasoline dispensing facilities (GDF) located at an area source. GDF means any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank. If a GDF has a monthly throughput of less than 10,000 gallons of gasoline, it must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- 1) Minimize gasoline spills;
- 2) Clean up spills as expeditiously as practicable;
- 3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- 4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

The facility has one gasoline tank with monthly throughput of less than 10,000 gallons of gasoline that will comply with the appropriate requirements of this subpart.

<u>Subpart HHHHHH</u>, Paint Stripping and Miscellaneous Surface Coating Operations. This subpart affects area sources involved in any of the following activities:

- 1. Paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), in paint removal processes;
- 2. Autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations; and
- 3. Spray application of coatings containing target HAP (compounds of chromium (Cr), lead (Pb),manganese (Mn), nickel (Ni), or cadmium (Cd)), to any part or product made of metal

or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.

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The facility does perform spray applications of coatings for piping at the facility; however, none of the current coating used at the facility contain any of the target HAP compounds referenced by this subpart. Therefore, this subpart is not applicable at this time.

<u>Subpart WWWWW</u>, Area Source Standards for Plating and Polishing Operations. This subpart affects plating and polishing area sources that are engaged in one or more of the following processes:

- 1) Electroplating other than chromium electroplating (i.e., non-chromium electroplating);
- 2) Electroless or non-electrolytic plating;
- 3) Other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying;
- 4) Dry mechanical polishing of finished metals and formed products after plating;
- 5) Electroforming; and/or
- 6) Electropolishing.

There is no coating applied to the piping in the form of "thermal spraying." Additionally, the facility does not perform any electroplating, high velocity oxy-fuel (HVOF) spraying, flame spraying, electric arc spraying, plasma arc spraying, and detonation gun spraying. Therefore, this subpart is not applicable to this operation.

<u>Subpart XXXXXX</u>, Area Source Standards for 9 Metal Fabrication and Finishing Source Categories. This subpart affects area sources that are primarily engaged in one of the nine source categories listed in this subpart that use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP) while performing dry abrasive blasting, machining, dry grinding and polishing, spray painting, or welding. MFHAP means any compound of the following metals: cadmium, chromium, lead, manganese, or nickel, or any of these metals in the elemental form with the exception of lead. A material that contains one or more of the MFHAP cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in an amount greater than or equal to 1.0 percent by weight (as the metal) is considered to be a material that contains MFHAP, as shown in formulation data provided by the manufacturer or supplier, such as the Safety Data Sheets for the material. The nine source categories described in Table 1 of this subpart are listed below with their potential SIC/NAICS Codes:

E	PA Source Category	SIC Description	SIC	NAICS	NAICS Description	
Electrical & Electronic		Motors & Generators Mfg.	Generators Mfg. 3621 335312 Motor & Generat		Motor & Generator Mfg.	
1	Electrical & Electronic	Electrical Machinery,	2600	225000	All Other Misc. Electrical	
	Equipment Finishing Ops	Equipment, & Supplies, NEC	3699 335999		Equipment & Component Mfg.	
		Fabricated Metal Products,	2400 222117		Dovudan Matallunav Dant Mfa	
2	Fabricated Metal Products,	NEC	5499	552117	Powder Metanurgy Part Mig.	
2	NEC	Fabricated Metal Products,	2400 222000	222000	All Other Miscellaneous	
		NEC	3499	332999	Fabricated Metal Product Mfg.	
3			3443	332313	Plate Work Mfg.	

E	PA Source Category	SIC Description	SIC	NAICS	NAICS Description
	Fabricated Plate Work	Fabricated Plate Work &		332410	Power Boiler & Heat Exchanger Mfg.
	(Boiler Shops)	Boiler Shops		332420	Metal Tank (Heavy Gauge) Mfg.
4	Fabricated Structural Metal Mfg.	Fabricated Structural Metal Fabrication	3441	332312	Fabricated Structural Metal Mfg.
5	Heating Equipment, except Electric	Heating Equipment, except electric	3433	333414	Heating Equipment (except Warm Air Furnaces) Mfg.
		Construction Machinery Manufacturing	3531	333120	Construction Machinery Mfg.
6	6 Industrial Machinery & Equipment: Finishing Ops	Oil & Gas Field Machinery Equipment Mfg.	3533	333132	Oil & Gas Field Machinery and Equipment Mfg.
		Pumps & Pumping Equipment Mfg.	3561	333911	Pump & Pumping Equipment Mfg.
7	Iron & Steel Forging	Iron and Steel Forging	3462	332111	Iron & Steel Forging
8	Primary Metals Products Mfg.	Primary Metals Products Mfg.	3399	332618	Other Fabricated Wire Product Mfg.
9	Valves & Pipe Fittings, NEC	Valves & Pipe Fittings, NEC	3494	332919	Other Metal Valve & Pipe Fitting Mfg.

Of the five affected sources listed above, the facility conducts only "Dry abrasive blasting, machining, and welding" using materials that contain or have the potential to emit MFHAP. However, this facility is not "primarily engaged" in the activities described by the NAICS/SIC code combination listed in Table 1 of the rule. Rather the "primarily engaged" manufacturing activity at this facility can be better described with other, more specific, SIC/NAICS code (further listed in more detail). SIC 3317 (Steel Pipes and Tubes): Establishments primarily engaged in the production of welded or seamless steel pipe and tubes and heavy riveted steel pipe from purchased materials. NAICS 331210 (Iron and steel pipe and tube manufacturing from purchased steel): This industry comprises establishments primarily engaged in manufacturing welded, riveted, or seamless pipe and tube from purchased iron or steel. Therefore, the facility is not subject to this rule.

### SECTION VII. COMPLIANCE

The facility was constructed and commenced operations of the new paint booth #3 without obtaining construction permit for the new unit. A self-disclosure was received on January 26, 2023, which resulted in opening Enforcement Case No. 10938. Issuance of this permit is part of the corrective action required to resolve the case.

### **Tier Classification**

This application has been classified as **Tier I** based on the request for operation of a minor source permit under the Traditional NSR Process.

The draft permit will undergo the public notice on the DEQ's web site as required in OAC 252:4-7-13(g). The public, tribal governments, and the EPA will have 30 days to comment on the draft permit. Permits available for public review and comment were found at Air Quality section of the DEQ Web page: <u>www.deq.ok.gov.</u>

Tribal Nations will be notified of the draft permit.

### Landowner Affidavit

The applicant has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the real property.

### **Enforcement Case/Violation**

Case ID	Start Date	<b>Close Date</b>	Description	
10938	1/26/2023	10/14/2024	<ul> <li>Self-Disclosure submitted on 1/26/2023</li> <li>1. Exceed facility-wide VOC limit</li> <li>2. Failure to obtain construction permit prior to installation of new paint booth</li> <li>3. Failure to maintain records of monthly VOC emissions</li> </ul>	

### Testing

No testing is required at this time.

### Inspection

An inspection is not required for the operating permit at this time.

### Fee Paid

A fee of \$750 was paid for a minor source operating permit on April 15, 2024.

### SECTION VIII. SUMMARY

The facility has demonstrated the ability to comply with all applicable Air Quality rules and regulations. There is no active enforcement case concerning this facility at this time. Issuance of the operating permit is recommended.

### PERMIT TO OPERATE AIR POLLUTION CONTROL FACILITY SPECIFIC CONDITIONS

### Paragon Industries, Inc. Paragon Industries

### Permit No. 2016-1146-O (M-1)

The permittee is authorized to operate in conformity with the specifications submitted to the Air Quality Division on April 15, 2024. The Evaluation Memorandum dated February 24, 2025, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction and continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Facility-Wide Emission Limits: NO<sub>X</sub>, CO, VOC, SO<sub>2</sub>, PM<sub>10</sub>/PM<sub>2.5</sub>, and HAP emissions from the whole facility are based on an estimated material usage, emission factors, and hours of operation and shall be limited to the emission limits shown below. The total NO<sub>X</sub>, CO, VOC, SO<sub>2</sub>, PM<sub>10</sub>/PM<sub>2.5</sub>, and HAP emissions from the whole facility shall not exceed the following limits based on a monthly, 12-month rolling total. Each month the permittee shall calculate the total emissions from the whole facility for that month and add it to the previous eleven months for the following: NO<sub>X</sub>, CO, VOC, SO<sub>2</sub>, PM<sub>10</sub>/PM<sub>2.5</sub>, and may HAPs reported on any Material Safety Data Sheet (MSDS) for any material used or consumed (e.g., coatings, primers, welding rods, fuels) at the facility.

Pollutant	Facility-Wide Emission Limit, TPY
NO <sub>x</sub>	1.00
CO	0.50
VOC	99.00
$SO_2$	0.50
PM <sub>10</sub> /PM <sub>2.5</sub>	25.00
Individual HAP	<9.99
Combined HAPs	<24.99

- a. **Emergency Engine (ENG-1, ENG-2):** Emissions from the two (2) diesel-fired engines shall be limited by, and will contribute to, the facility-wide cap on NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, VOC, and HAP emissions identified in Specific Condition No.1.
  - i. Each calendar month the applicant shall incorporate emissions from emergency engines into the 12-month rolling total emissions for NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, VOC, and HAP.
  - ii. The emergency engines (ENG-1 and ENG-2) shall only be fired with low sulfur or ultra-low sulfur diesel fuel, 0.5% or less by weight sulfur.
  - iii. All emergency engines are limited to the non-emergency operation hours specified in NSPS Subpart IIII, 12-month rolling cumulative. The engines shall be equipped with non-resettable hour meters, and the hours of operation shall be recorded monthly, along with a 12-month rolling total.

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- iv. A serial number or other acceptable form of permanent (non-removable) identification shall be on ENG-1 and ENG-2. The heat input rating shall be either posted on the unit, available in the manufacturer's data, or operating manual. All manufacturers' data shall be provided upon request.
- b. Welding (WELD-1): Emissions from welding operations shall be limited by, and will contribute to, the facility-wide cap on  $PM_{10}/PM_{2.5}$  and HAP emissions identified in Specific Condition No. 1.
  - i. Each calendar month the applicant shall incorporate emissions from welding into the 12-month rolling total emissions for  $PM_{10}/PM_{2.5}$  and HAP.
  - ii. The permittee shall retain a copy of the MSDS for each type of welding rod used. If any MSDS shows any HAP to be present in any type of welding rod in concentrations greater than or equal to 0.1% by weight, those HAP emissions shall be computed using AP-42 factors and used to demonstrate compliance with the facility-wide cap on individual and total HAP emissions.
- c. Coating Operation (PB-1, PB-2, PB-3, PB-4): Emissions from the paint booths and related equipment (including clean-up with VOCs on any article, machine, or equipment used in applying coatings) shall be limited by (and will contribute to) the facility-wide cap on PM<sub>10</sub>, VOC, and HAP emissions identified in Specific Condition No. 1.
  - i. Each calendar month the applicant shall incorporate emissions from paint booths and coating operations into the 12-month rolling total emissions for  $PM_{10}$ , VOC, and HAP.
  - ii. VOC emissions from clean-up solvents may be determined as the difference between the amounts used minus the amounts recovered for disposal. VOC emissions from cleanup solvents shall be included when determining compliance with the limitations of VOC per gallon of coating less water and exempt solvents, unless those solvents are recycled into the system or disposed of in such a manner that would prevent their evaporation into the atmosphere.
  - iii. The VOC content of coating as applied shall not exceed the following limits and shall include all solvents used to cleanup any article, machine, or equipment used in applying coatings.

Coating Type	Definition	Limitation (lb-VOC/gal)
	A chemical coating composed primarily of alkyd	
Alkyd primer	applied to a surface to provide a firm bond	4.8
	between the substrate and any additional coating	
	A chemical coating containing plasticized or	
Vinyl	unplasticized polymers and co-polymers of vinyl	
	acetate, vinyl chloride, polyvinyl alcohols or their	6.0
	condensation products. The primary mode of cure	
	is solvent evaporation.	

Coaling Type Limits (As Applied) from UAC 252:1	100-37-25
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Coating Type	Definition	Limitation (lb-VOC/gal)
Nitrocellulose	A chemical coating containing nitrocellulose and	
lacquer	suitable resinous modifiers. The primary mode of	6.4
(NC lacquer)	cure is solvent evaporation.	
Acrylics	A chemical coating containing polymers or co- polymers of acrylic or substitute acrylic acid in combination with resinous modifiers. The primary mode of cure is solvent evaporation.	6.0
Epoxies	A chemical coating containing epoxy groups and suitable chemical cross-linking agents. The primary mode of cure involves a chemical reaction between the epoxy and the cross-linking agent.	4.8
Maintenance finishes	A chemical coating that protects a given substrate from adverse chemical or physical conditions.	4.8
Custom products finish	A proprietary chemical coating designed for a specific customer and use.	6.5

- iv. Paint spraying equipment shall be cleaned with VOCs being drained into a closed container.
- v. Particulate emissions from paint booth overspray shall be controlled by dry filters, with a control efficiency of at least 88.9%.
- vi. The filters shall be maintained and operated in accordance with manufacturer's specifications. Permittee shall keep a log of all filter changes that occur.
- vii. The permittee shall retain a copy of the MSDS of each type of coating, primer, solvent, or related material used.
- d. **Fusion Bonded Epoxy Coating (FBE-1):** Emissions from the fusion bonded epoxy coating operation shall be limited by (and will contribute to) the facility-wide cap on  $PM_{10}$  and HAP emissions identified in Specific Condition No. 1.
  - i. Each calendar month the applicant shall incorporate emissions from the fusion bonded epoxy coating operation into the 12-month rolling total emissions for  $PM_{10}$ , and HAP.
  - ii. Particulate emissions from overspray powder shall be contained in the booth enclosure and drawn to the primary filter cartridges, with a control efficiency of at least 99.9%.
  - iii. The filters shall be maintained and operated in accordance with manufacturer's specifications. Permittee shall keep a log of all filter changes that occur.
  - iv. The permittee shall retain a copy of the MSDS of each type of coating, primer, solvent, or related material used.
- e. **Storage Tanks (GTK-1, DTK-1, DTK-2, DTK-3)**: Emissions from the gasoline and diesel storage tanks shall be limited by, and will contribute to, the facility-wide cap on VOC emissions identified in Specific Condition 1.

- i. The permitted shall record the gasoline and diesel throughput on monthly and 12month rolling total.
- ii. The gasoline tank (GTK-1) shall be equipped for submerged fill.
- f. **Miscellaneous Chemical Usage (FUG-1):** Emissions from miscellaneous chemical usage shall be limited by (and will contribute to) the facility-wide cap on PM<sub>10</sub>, VOC, and HAP emissions identified in Specific Condition 1.
  - i. Each calendar month the applicant shall incorporate emissions from paint booths and coating operations into the 12-month rolling total emissions for  $PM_{10}$ , VOC, and HAP.
  - ii. The permittee shall retain a copy of the MSDS of each type of coating, primer, solvent, or related material used.
- 2. The owner/operator shall comply with all applicable requirements of the NSPS: Stationary CI ICE, Subpart IIII, including but not limited to:
  - a. §60.4200 Am I subject to this subpart?
  - b. §60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?
  - c. §60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?
  - d. §60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?
  - e. §60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
  - f. §60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?
  - g. §60.4206 How long must I meet the emissions standards if I am an owner or operator of a stationary SI internal combustion engine?
  - h. §60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?
  - i. §60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?
  - j. §60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?
  - k. §60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?
  - 1. §60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?
  - m. §60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?
  - n. § 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

- o. §60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?
- p. §60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?
- q. §60.4216 What requirements must I meet for engines used in Alaska?
- r. §60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?
- s. §60.4218 What parts of the General Provisions apply to me?
- 3. All engines are affected facilities under NESHAP Subpart ZZZZ and shall comply with all sections including, but not necessarily restricted to, the following.
  - a. §63.6580 What is the purpose of subpart ZZZ?
  - b. §63.6585 Am I subject to this subpart?
  - c. §63.6590 What parts of my plant does this subpart cover?
  - d. §63.6595 When do I have to comply with this subpart?
  - e. §63.6600 What emission limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?
  - f. §63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB with a site rating of greater or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?
  - g. §63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal or less than 500 brake HP located at an area source of HAP emissions?
  - h. §63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?
  - i. §63.6604 What fuel requirements must I meet if I own or operate a stationary CI RICE?
  - j. §63.6605 What are my general requirements for complying with this subpart?
  - k. §63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operating a stationary RICE with a site rating of more than 500 brake HP located at an area source of HAP emissions?
  - 1. §63.6611 By wat date must I conduct the initial performance tests or other initial compliance demonstration if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions?
  - m. §63.6612 By wat date must I conduct the initial performance tests or other initial compliance demonstration if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?
  - n. §63.6615 When must I conduct subsequent performance tests?
  - o. §63.6620 What performance tests and other procedures must I use?
  - p. §63.6625 What are my monitoring, installation, operation, and maintenance requirements?
  - q. §63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?
  - r. §63.6635 How do I monitor and collect data to demonstrate continuous compliance?
  - s. §63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

- t. §63.6645 What notifications must I submit and when?
- u. §63.6650 What reports must I submit and when?
- v. §63.6655 What records must I keep?
- w. §63.6660 In what form and how long must I keep my records?
- x. §63.6665 What parts of the General Provisions apply to me?
- y. §63.6670 Who implements and enforces this subpart?
- z. §63.6675 What definitions apply to this subpart?
- 4. This facility is subject to NESHAP Subpart CCCCCC, and shall comply with all applicable requirements as listed below:
  - a. §63.11110 What is the purpose of this subpart?
  - b. §63.11111 Am I subject to the requirements in this subpart?
  - c. §63.11112 What parts of my affected source does this subpart cover?
  - d. §63.11113 When do I have to comply with this subpart?
  - e. §63.11115 What are my general duties to minimize emissions?
  - f. §63.11116 Requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.
  - g. §63.11117 Requirements for facilities with monthly throughput of 10,000 gallons of gasoline or more.
  - h. §63.11118 Requirements for facilities with monthly throughput of 100,000 gallons of gasoline or more.
  - i. §63.11120 What testing and monitoring requirements must I meet?
  - j. §63.11124 What notifications must I submit and when?
  - k. §63.11125 What are my recordkeeping requirements?
  - 1. §63.11126 What are my reporting requirements?
  - m. §63.11131 Who implements and enforces this subpart?
  - n. §63.11130 What parts of the General Provisions apply to me?
  - o. §63.11131 Who implements and enforces this subpart?
  - p. §63.11132 What definitions apply to this subpart?
- 5. All records necessary to demonstrate compliance with permit conditions shall be maintained on-site or at a readily accessible location for a period of five years and will be available for review by regulatory personnel during normal business hours.
  - a. Records of the emission calculations showing compliance with the facility-wide cap, monthly and 12-month rolling totals.
  - b. Records of sulfur content wt. (%) of diesel fuel (using a sulfur analysis and/or certification from the fuel supplier) per Specific Condition 1(a).
  - c. Record of hours of operation for each stationary engine (monthly and 12-month rolling totals), per Specific Condition 1(a).
  - d. Current Material Safety Data Sheet (MSDS) for all electrodes used in the welding operations, per Specific Condition 1(b).
  - e. Records of the amount of electrodes consumed (monthly), per Specific Condition 1(b).

- f. Emissions from VOC containing products used at the facility (including but not limited to paints, coatings, and solvents) shall be calculated monthly and 12-month rolling totals, per Specific Condition 1(c).
- g. Daily record of coating operation to demonstrate compliance with OAC 252:100-37-25(c) and other records required per Specific Condition 1(d)(iii).
- h. Records of the powder coating product used (monthly), per Specific Condition 1(d).
- i. Records of paint booth and coating booth filter changes, per Specific Condition 1(c) and 1(d).
- j. Current Material Safety Data Sheets (MSDS) for all coating products, per Specific Condition 1(c) and 1(d).
- k. Records of gasoline and diesel throughput (monthly and 12-month rolling totals), per Specific Condition 1(e).
- 1. Recordkeeping required by NSPS Subpart IIII.
- m. Recordkeeping required by NESHAP Subpart ZZZZ.
- n. Recordkeeping required by NESHAP Subpart CCCCCC.
- 6. The permittee shall be authorized to operate this facility continuously (8,760 hpy) with the exception of the emergency generators (ENG-1 and ENG-2) which are limited to the requirements of NSPS Subpart IIII.
- 7. Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event.
- 8. Upon issuance, Permit No. 2016-1146 O (M-1) shall replace and supersede all previous Air Quality permits and/or authorizations issued to this facility, which are now cancelled.

### MINOR SOURCE PERMIT TO OPERATE/CONSTRUCT AIR POLLUTION CONTROL FACILITY STANDARD CONDITIONS

### (February 13, 2020)

A. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ) in accordance with and under the authority of the Oklahoma Clean Air Act. The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. This specifically includes compliance with the rules of the other Divisions of DEQ: Land Protection Division and Water Quality Division.

B. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-7-15(g)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-7-15(f)]

C. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-7-18(a)]

D. Unless specified otherwise, the term of an operating permit shall be unlimited.

E. Notification to the Air Quality Division of DEQ of the sale or transfer of ownership of this facility is required and shall be made in writing by the transferor within 30 days after such date. A new permit is not required. [OAC 252:100-7-2(f)]

- F. The following limitations apply to the facility unless covered in the Specific Conditions:
- 1. No person shall cause or permit the discharge of emissions such that National Ambient Air Quality Standards (NAAQS) are exceeded on land outside the permitted facility.

[OAC 252:100-3]

- All facilities that emit air contaminants are required to file an emission inventory and pay annual operating fees based on the inventory. Instructions are available on the Air Quality section of the DEQ web page. <u>www.deq.ok.gov</u> [OAC 252:100-5]
- 3. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements. [OAC 252:100-9]
- 4. Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning subchapter.

[OAC 252:100-13]

- 5. No particulate emissions from new fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lbs/MMBTU. [OAC 252:100-19]
- 6. No discharge of greater than 20% opacity is allowed except for short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity. [OAC 252:100-25]

- 7. No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]
- No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lbs/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]
- 9. Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with an organic material vapor-recovery system. [OAC 252:100-37-15(b)]
- 10. All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

G. Any owner or operator subject to provisions of NSPS shall provide written notification as follows: [40 CFR 60.7 (a)]

- 1. A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
- 2. A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
- 3. A notification of the actual date of initial start-up of an affected facility postmarked within 15 days after such date.
- 4. If a continuous emission monitoring system is included in the construction, a notification of the date upon which the test demonstrating the system performance will commence, along with a pretest plan, postmarked no less than 30 days prior to such a date.

H. Any owner or operator subject to provisions of NSPS shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility or any malfunction of the air pollution control equipment. [40 CFR 60.7 (b)]

I. Any owner or operator subject to the provisions of NSPS shall maintain a file of all measurements and other information required by this subpart recorded in a permanent file suitable for inspection. This file shall be retained for at least five years following the date of such measurements, maintenance, and records. [40 CFR 60.7 (f)]

J. Any owner or operator subject to the provisions of NSPS shall conduct performance test(s) and furnish to AQD a written report of the results of such test(s). Test(s) shall be conducted within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial start-up. [40 CFR 60.8]



# PERMIT

### AIR QUALITY DIVISION STATE OF OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY 707 N. ROBINSON, SUITE 4100 P.O. BOX 1677 OKLAHOMA CITY, OKLAHOMA 73101-1677

# FESOP No. 2016-1146-O (M-1)

Paragon Industries, Inc.,

having complied with the requirements of the law, is hereby granted permission to operate the Paragon Industries, located in Section 4, Township 17N, Range 12E, Creek County, Oklahoma, subject to standard conditions dated February 13, 2020, and specific conditions, both attached.

DRAFT

Lee Warden, P.E. Permits and Engineering Group Manager **Date Issued** 



Jim Wall Paragon Industries, Inc. 3378 W. Highway 117 Sapulpa, OK 74066

Subject: Operating Permit No. **2016-1146-O** (**M-1**) Paragon Industries (Fac. ID: 16741) Section 4, Township 17N, Range 12E, Creek County

Dear Mr. Wall:

Enclosed is the permit authorizing operation at the referenced facility. Please note that this permit is issued subject to standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emission inventory for this facility. An emission inventory must be completed through DEQ's electronic reporting system by April 1<sup>st</sup> of every year. Any questions concerning the form or submittal process should be referred to the Emission Inventory Staff at (405) 702-4100.

Thank you for your cooperation. If you have any questions, please refer to the permit number above and contact the permit writer at (918) 293-1615, or by e-mail at jennie.doan@deq.ok.gov. Air Quality personnel are located in the Regional Office at Tulsa, 9933 E. 16<sup>th</sup> Street, Tulsa, OK, 74128.

Sincerely,

DRAFT

Lee Warden, P.E. Permit and Engineering Group Manager AIR QUALITY DIVISION

Enclosure



Muscogee Nation Attn.: David Hill, Principal Chief P.O. Box 580 Okmulgee, OK 74447

Subject: Operating Permit No. **2016-1146-O** (**M-1**) Paragon Industries (Fac. ID: 16741) Latitude: 35.98826°, Longitude: -96.032139° Section 4, Township 17N, Range 12E, Creek County Date Received: April 15, 2024

Dear Chief Hill:

The Oklahoma Department of Environmental Quality (ODEQ), Air Quality Division (AQD), has received the Tier I application referenced above. A Tier I application requires AQD to provide a 30-day public comment period on the draft Tier I permit on the ODEQ website. Since the proposed project falls within your Tribal jurisdiction, AQD is providing this direct notice. This letter notification is in addition to email notifications provided to tribal contacts on record.

Copies of draft permits and comment opportunities are provided to the public on the ODEQ website at the following location:

https://www.deq.ok.gov/permits-for-public-review/

If you prefer a copy of the draft permit, or direct notification by letter for any remaining public comment opportunities, if applicable, on the referenced permit action, please notify our Chief Engineer, Phillip Fielder, by e-mail at phillip.fielder@deq.ok.gov, or by letter at:

Department of Environmental Quality, Air Quality Division Attn.: Phillip Fielder, Chief Engineer P.O. Box 1677 Oklahoma City, OK, 73101-1677

Thank you for your cooperation. If you have any questions, I can be contacted at (405) 702-4237 and Mr. Fielder may be reached at (405) 702-4185.

Sincerely,

e. Chal.

Lee Warden, P.E. Permit and Engineering Group Manager AIR QUALITY DIVISION

# Department of Environmental Quality (DEQ) Air Quality Division (AQD) Acronym List

# 11-21-2024

ACFM AD	Actual Cubic Feet per Minute Applicability Determination	GACT	Generally Achievable Control Technology
AFRC	Air-to-Fuel Ratio Controller	GAL	Gallon (gal)
API	American Petroleum Institute	GDF	Gasoline Dispensing Facility
ASTM	American Society for Testing and	GEP	Good Engineering Practice
	Materials	GHG	Greenhouse Gases
AVO	Audio, Visual, or Olfactory	GR	Grain(s) (gr)
BACT	Best Available Control Technology	H <sub>2</sub> CO	Formaldehyde
BAE	Baseline Actual Emissions	$H_2S$	Hydrogen Sulfide
BBL	Barrel(s)	HAP	Hazardous Air Pollutants
BHP	Brake Horsepower (bhp)	HC	Hydrocarbon
BTEX	Benzene, Toluene, Ethylbenzene, Xylene	HCFC	Hydrochlorofluorocarbon
BTU	British thermal unit (Btu)	HFR	Horizontal Fixed Roof
~ ~ -		HON	Hazardous Organic NESHAP
C&E	Compliance and Enforcement	HP	Horsepower (hp)
CAA	Clean Air Act	HR	Hour (hr)
CAM	Compliance Assurance Monitoring	_	
CAS	Chemical Abstract Service	I&M	Inspection and Maintenance
CAAA	Clean Air Act Amendments	IBR	Incorporation by Reference
CC	Catalytic Converter	ICE	Internal Combustion Engine
CCR	Continuous Catalyst Regeneration		
CD	Consent Decree	LAER	Lowest Achievable Emission Rate
CEM	Continuous Emission Monitor	LB	Pound(s) [Mass] (lb, lbs, lbm)
CFC	Chlorofluorocarbon	LB/HR	Pound(s) per Hour (lb/hr)
CFR	Code of Federal Regulations	LDAR	Leak Detection and Repair
CI	Compression Ignition	LNG	Liquefied Natural Gas
CNG	Compressed Natural Gas		Long Ton(s) (metric)
CO	Carbon Monoxide or Consent Order	LPE	Legally and Practicably Enforceable
COA	Capable of Accommodating		
COM	Continuous Opacity Monitor	M	Thousand (Roman Numeral)
D	D	MAAC	Maximum Acceptable Ambient
DEE		MACT	Concentration
DEF	Diesei Exhaust Fluid	MACI	Maximum Achievable Control
DG	Demand Growin	NANA	Deafing used from Million (Thomson d
DSCF	Cubic Foot (Feet)	IVIIVI	Thousand)
		MMBTU	Million British Thermal Units (MMBtu)
EGU	Electric Generating Unit	MMBTUH	Million British Thermal Units per Hour
EI	Emissions Inventory		(MMBtu/hr)
EPA	Environmental Protection Agency	MMSCF	Million Standard Cubic Feet (MMscf)
ESP	Electrostatic Precipitator	MMSCFD	Million Standard Cubic Feet per Day
EUG	Emissions Unit Group	MSDS	Material Safety Data Sheet
EUSGU	Electric Utility Steam Generating Unit	MWC	Municipal Waste Combustor
20000	Zieline candy steam constanting cant	MWe	Megawatt Electrical
FCE	Full Compliance Evaluation		
FCCU	Fluid Catalytic Cracking Unit	NA	Nonattainment
FEL	Federally Enforceable Limit(s)	NAAQS	National Ambient Air Quality Standards
FIP	Federal Implementation Plan	NAICS	North American Industry Classification
FR	Federal Register		System
		NESHAP	National Emission Standards for Hazardous Air Pollutants

# AQD Acronym List

NH <sub>3</sub>	Ammonia	SCC	Source Classification Code
NMHC	Non-methane Hydrocarbon	SCF	Standard Cubic Foot
NGL	Natural Gas Liquids	SCFD	Standard Cubic Feet per Day
NO <sub>2</sub>	Nitrogen Dioxide	SCFM	Standard Cubic Feet per Minute
NOx	Nitrogen Oxides	SCR	Selective Catalytic Reduction
NOI	Notice of Intent	SER	Significant Emission Rate
NSCR	Non-Selective Catalytic Reduction	SI	Spark Ignition
NSPS	New Source Performance Standards	SIC	Standard Industrial Classification
NSR	New Source Review	SIP	State Implementation Plan
		SNCR	Selective Non-Catalytic Reduction
<b>O</b> 3	Ozone	SO <sub>2</sub>	Sulfur Dioxide
O&G	Oil and Gas	SOx	Sulfur Oxides
O&M	Operation and Maintenance	SOP	Standard Operating Procedure
O&NG	Oil and Natural Gas	SRU	Sulfur Recovery Unit
OAC	Oklahoma Administrative Code		
OC	Oxidation Catalyst	Т	Tons
OGI	Optical Gas Imaging	TAC	Toxic Air Contaminant
		TEG	Triethylene Glycol
PAH	Polycyclic Aromatic Hydrocarbons	THC	Total Hydrocarbons
PAE	Projected Actual Emissions	TPY	Tons per Year
PAL	Plant-wide Applicability Limit	TRS	Total Reduced Sulfur
Pb	Lead	TSP	Total Suspended Particulates
PBR	Permit by Rule	TV	Title V of the Federal Clean Air Act
РСВ	Polychlorinated Biphenyls		
PCE	Partial Compliance Evaluation	μg/m <sup>3</sup>	Micrograms per Cubic Meter
PEA	Portable Emissions Analyzer	US EPA	U. S. Environmental Protection Agency
PFAS	Per- and Polyfluoroalkyl Substance		
PM	Particulate Matter	VFR	Vertical Fixed Roof
PM2.5	Particulate Matter with an Aerodynamic	VMT	Vehicle Miles Traveled
D) (	Diameter <= 2.5 Micrometers	VOC	Volatile Organic Compound
$PM_{10}$	Particulate Matter with an Aerodynamic	VOL	Volatile Organic Liquid
DOM	Diameter <= 10 Micrometers	VRT	Vapor Recovery Tower
POM	Particulate Organic Matter of Polycyclic	VRU	vapor Recovery Unit
nnh	Parts per Billion	VR	Vear
ppp	Parts per Million	IK	i cai
ppin	Parts per Million Volume	2SI B	2-Stroke Lean Burn
ppmvd	Parts per Million Dry Volume	2511D 451 B	A-Stroke Lean Burn
PSD	Prevention of Significant Deterioration	4SEB	4-Stroke Rich Burn
nsi	Pounds per Square Inch	15 HD	i Suone Itten Buin
nsia	Pounds per Square Inch Absolute		
psig	Pounds per Square Inch Gage		
10			
RACT	Reasonably Available Control		
рата	Polotivo Accuracy Test Audit		
RAIA	Regulated Air Pollutant or		
INAL	Reclaimed Asphalt Payament		
RFC	Refinery Fuel Gas		
RICE	Reciproceting Internal Combustion		
NICL	Engine		
RO	Responsible Official		
ROAT	Regional Office at Tulsa		
RVP	Reid Vapor Pressure		
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