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OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **July 13, 2021**

TO: Phillip Fielder, P.E., Chief Engineer

THROUGH: Rick Groshong, Compliance and Enforcement Group Manager

THROUGH: Eric L. Milligan, P.E., Engineering Manager, Engineering Section

THROUGH: Joseph K. Wills, P.E., Engineering Section

FROM: Kayla Cunningham, E.I., Existing Source Permit Section

SUBJECT: Evaluation of Permit Application No. **2019-1012-O**
The Nordam Group LLC
Nordam Manufacturing Division (SIC 3728/NAICS 336413)
AQD Facility ID: 2519
Latitude: 36.25491°N, Longitude: 95.92073°W
Section 33, Township 21N, Range 13E, Tulsa County, Oklahoma
Physical Address: 6910 and 6911 Whirlpool Drive, Tulsa, OK, 74117

I. INTRODUCTION

The Nordam Group LLC (Nordam or the applicant) has requested an individual minor source operating permit for their Nordam Manufacturing Division in Tulsa County, Oklahoma. The facility is currently operating under Permit No. 2014-0311-TVR2 (M-1), issued on June 30, 2019.

The facility was previously a major source of VOC and HAP. Since the rescission of EPA's historical "Once-In-Always-In" policy on January 25, 2018, the facility has requested to be permitted as a synthetic minor source and to operate under a facility-wide CAP with permitted emission limits below major source levels. Additionally, the applicant has submitted actual emissions data to demonstrate compliance with the reduced emission limits. Permit No. 2019-1012-O will be processed as Tier II and issued as a synthetic minor, contingent on public, state, and EPA review.

Part 70 Renewal fees were past due when the application for this permit was submitted on September 12, 2019. For this reason, Enforcement Case No. 9634 was opened. By October 21, 2019, the Part 70 Renewal fees were paid in full to satisfy the active Enforcement Case, which is now closed.

Nordam shares the majority of their Nacelle/Thrust Reverser Systems Division (NTRSD) equipment with Gulfstream Aerospace (Gulfstream). All emission units at the facility are included

in this permit, and Gulfstream does not operate any other emission units. For permitting purposes, the integrated operations are being treated as a single facility.

This permit includes the following equipment changes from the previous permit:

- Removal of paint booths with the following Point IDs: P3 NTR, P1 I&S, P6 I&S, P7 I&S, P14 I&S, and P15 I&S.
- Removal of adhesive booth P19 I&S and two (2) clean line water heaters.
- Combination of the two (2) paint booths within P2 I&S. In the previous permit, these paint booths were listed separately as Booth No. 2a and 2b. Both were included under P2 I&S. Because the wall separating booth 2a from 2b has been removed from the site, the applicant has requested to designate the combined booth as 2a/b. No equipment has been added to or removed from P2 I&S in this permit.
- Addition of one (1) NTR oven with a 0.75-MMBTUH rating. This oven was added to the facility in April 2016 and was previously considered an insignificant activity at a major source. As such, the oven addition did not trigger additional permitting requirements.
- Addition of a release agent booth and its emissions. This booth was constructed in 2018 but was never used. To fulfill a new contract, Nordam requested to incorporate this booth into the permit for use in the future.

II. PROCESS DESCRIPTION

The applicant operates an aerospace manufacture, repair, and rework facility, which manufactures aircraft subassemblies. The work of this facility is based entirely on customer demand, so no "normal" process rates or production rates can be assigned to activities.

NTRSD manufactures equipment from steel, aluminum, and graphite. The most significant emissions source in the process involves coating, requiring two (2) paint booths and an adhesive booth. The facility also has six (6) natural gas ovens and three (3) natural gas autoclaves. The facility performs developmental testing and certification of the equipment.

NTRSD shares the building with Gulfstream. There is no well-defined division within the building between the two companies. At this time, both companies share the paint booths along with the majority of equipment within the facility.

The Interiors and Structures Division (I&S) makes structural and interior products, using composite and metal bond materials. These products require paint booths, curing ovens, two boilers for heating, a vapor degreaser, and a clean-line process that involves thirteen (13) tanks, one (1) drying tank, and two (2) steam boilers. The boilers are natural gas-fired, each with heat input less than 5 MMBTUH.

The I&S building includes paint booths for painting aerospace subassembly parts (P2 I&S, P4 I&S, P9 I&S, and P22 I&S) and booths for constructing aircraft cabin interior products from wood or wood products (P16 I&S, P17 I&S, and P18 I&S). The booths that manufacture wooden products are contained in the Cabinet Finish Shop; however, this shop also paints aerospace

subassembly parts when necessary. One (1) cabinet stain booth and one (1) glue booth are also included in the Cabinet Finish Shop.

While the facility does not operate continuously, the permit limits, which are below major source level, allow for 8,760 hours of operation per year.

III. EQUIPMENT

Paint Booths

Point ID	Booth No.	Dimensions	Construction Date
P1 NTR(1)	1	24′ deep × 30′ wide × 12′ high	2008
P2 NTR	2	24′ deep × 30′ wide × 12′ high	2008
P2 I&S	2a/b (Finishout 2)	24′ deep × 16′ wide × 8′ high	2002
P4 I&S	4	8′ deep × 14′ wide × 7′ high	2002
P9 I&S	9	26′ deep × 14′ wide × 9′ high	2002
P16 I&S	13	26′ deep × 13′ wide × 9′ high	03/2014
P17 I&S	14	26′ deep × 13′ wide × 9′ high	04/2014
P18 I&S	15	26′ deep × 13′ wide × 9′ high	05/2014
P20 I&S	Stain	17′ deep × 9′ wide × 7′ high	03/2014
P22 I&S	16	14′ deep × 35′ wide × 18′ high	05/2014

(1) NTR = Nacelle Thrust Reversers

Adhesives Booths

Point ID	Booth Name	Dimensions	Construction Date
P5 NTR	Adhesives	6′ deep × 6′ wide × 7′ high	2000
P12 I&S	Glue	5′ deep × 10′ wide × 6′ high	2002
P21 I&S	Cabinet Glue #1	4′ deep × 10′ wide × 7′ high	03/2014

Cleaning Operations

Cleaning operations occur throughout the facility, and emissions are not confined to identifiable stacks. This section includes hand-wipe, paint gun cleaning, and flush-cleaning operations.

Point ID	Area
P4	NTRSD
P6	I&S

Combustion Units

The following table shows each item, its location, and heat input.

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Unit Name	Location	Number of Units / Rating (MMBTUH)
Fulton oil heater (2)	I&S	1 / 6.0, 1 / 4.0
Ovens (8)	I&S	4 / 0.5, 1 / 1.5, 1 / 0.25, 1 / 0.6, 1 / 3.8
Ovens (6)	NTR	1 / 1.5, 2/ 0.75 (1) , 2 /1.4, 1 / 3.0
Unit heaters (11)	I&S	6 / 0.4, 5 / 0.125
Boilers (2)	I&S	2 / 8.0
Spray booth	I&S	1 / 3.6
Spray booth	NTR	1 / 3.6
Cleaver-Brooks boilers (2)	I&S	2 / 2.5
Autoclaves (3)	NTR	1 / 3.6, 1 / 3.0, 1 / 2.0
Autoclave (1)	I&S	1 / 3.6
Humidifiers (4)	I&S	3 / 0.476, 1 / 0.119
Roof air & heating units (63)	NTR	Varies(2)

(1) One (1) 0.75-MMBTUH NTR oven was added to facility in April 2016.
(2) Total rating is 13.375 MMBTUH. The largest unit is rated at 0.268 MMBTUH.

Vapor Degreaser

The batch unit is 14′ long by 3′ 6″ wide by 10′ 3″ tall, with an air-solvent interface of 7,258 square inches. This 165-gallon unit was installed in March 2005.

Release Agent Booth

The facility includes one (1) booth used for application of a release agent. The release agent produces VOC emissions, which are included in the Booth Emissions table in Section IV.

Point ID	Booth Name	Dimensions	Construction Date
P23 I&S	Release Agent	36´ 4´´ deep × 16´ 14´´ wide × 10´ 7´´ high	2018

Additional Equipment

There are two (2) drying ovens, two (2) air compressors, and three (3) vacuum pumps, but all of these are powered by electricity, have no associated emissions, and are not further discussed. Additionally, there are three (3) small booths involved in wood construction, six (6) sanding booth located throughout I&S, and five (5) sanding booths at NTRSD.

IV. EMISSIONS

Booth Emissions

VOC emission estimates for the paint booths and release agent application are based on 12-month rolling totals of coating usage for the year 2020 and emission factors from material data sheets for each coating. PM emissions are based on the total coating usage, a solids content of 10 lb/gal for the coatings, a 70% transfer efficiency, and a 99% control efficiency.

Coating	Classification	Total Usage (gal/yr)	Emission Factor (lb VOC/gal)	VOC Emissions	
				lb/yr	TPY
P22 I&S - Booth No. 16					
BR-127	Corrosion Prevention System	3203	6.6	21139.80	10.57
BR-6747	Corrosion Prevention System	44.06	0	0.00	0.00
BR-154	Corrosion Prevention System	0.13	5.87	0.76	<0.01
AC 2000 Al-2000	Primer	0.55	0.12	0.07	<0.01
P2 I&S - Booth No. 2a/b (Finishout 2)					
10P4-2 Green Primer	Compatible Substrate Primer	6.71	5.4	36.23	0.02
20P20-3 Surfacer Akzo	Topcoat	23.62	3.5	82.67	0.04
487-600 White Primer	Compatible Substrate Primer	8.8	5.5	48.40	0.02
515X333 Green Super Koropon Primer	Compatible Substrate Primer	8.62	5.01	43.19	0.02
85285-37038 Flat Black Lacquer	Part Marking Coating	8.59	3.5	30.07	0.02
Mil-C-85285-36118 420 Part A Gray Topcoat	Topcoat	19	2.34	44.46	0.02
10P2-3 C.M. Anti-Static Coating 1001030	EMI Coating	6.51	5.7	37.11	0.02
10P30-5 Crown Metro Cessna Green Primer	Fuel Tank Coating/ Corr. Res. Epoxy Primer	0.5	2.9	1.45	<0.01
10P30-5 Part A Crown Metro Cessna Green Primer	Fuel Tank Coating/ Corr. Res. Epoxy Primer	0.25	4.2	1.05	<0.01
TR-115 Part B 10P30-5	Fuel Tank Coating/ Corr. Res. Epoxy Primer	0.09	2.8	0.25	<0.01
EC-275 Part C 10P30-5	Fuel Tank Coating/ Corr. Res. Epoxy Primer	0.17	6.6	1.12	<0.01
Mankiewicz 906Q-U White 346-57 70913	Topcoat	0.25	1.41	0.35	<0.01
CA7630 PRC Epoxy Sanding Primer	Smoothing Compound	1.87	3	5.61	<0.01
10P20-13 Yellow Primer 1001028	Compatible Substrate Primer	29.59	2.84	84.04	0.04
Mankewicz 343-60 Waterbase Primer 1597346 1584707	Primer/Fill Primer	4	0.43	1.72	<0.01
515X349 PRC Part A Green Primer	Compatible Substrate Primer	0.12	5.42	0.65	<0.01
Mil-C-85285-17925 Deft Gloss White 1013313	Topcoat	120.48	35	4216.80	2.11
F09028 S.W. Waterbase Black 1012651	Topcoat	11.91	2.3	27.39	0.01
S.W. F09098B Waterbase Black 1544587	Topcoat	2.38	2.3	5.47	<0.01
10P8-11 Akzo Green Primer	Primer	11.45	2.8	32.06	0.02
S.W. F09104 Jet Flex Waterbase Color	Topcoat	6.63	2.8	18.56	<0.01
10P20-44 Akzo Yellow Part A 1790693	Primer	1.88	0.36	0.68	<0.01

Coating	Classification	Total Usage (gal/yr)	Emission Factor (lb VOC/gal)	VOC Emissions	
				lb/yr	TPY
44GN011 GMS 5005 Deft Waterbase Green Primer 1003399	Primer	136.38	2.87	391.41	0.20
CA8100/17925 PRC 1566442	Anti-Chafe Topcoat	4.74	2.96	14.03	<0.01
PRC 5/27/2001 1006727 37038	Topcoat	12.62	3.5	44.17	0.02
Mankewicz 314-11 1752020	Primer/Fill Primer	1.75	0.42	0.74	<0.01
Mankewicz 313-02 1742216	Primer	7	1.25	8.75	<0.01
Mankewicz 311-03 1742217	Topcoat	6.5	1	6.50	<0.01
Deft 27038 Black 1056419 1820687	Topcoat	3.12	2.8	8.74	<0.01
Creative Coatings Ivory 1778286	No Classification	0.75	5.61	4.21	<0.01
Akzo 1050 White 1717794	Corrosions Prevention System	10.5	0.58	6.09	<0.01
Acetone Cleanup	N/A	48.75	6.59	321.26	0.16
D61W24 White S.W. 1744058	No Classification	0.5	4.24	2.12	<0.01
Deft 1000069 Clear	No Classification	1.77	2.8	4.96	<0.01
A1500-M ECS2149 Monopol Black 1801217	No Classification	4.25	5.61	23.84	0.01
Monopol primer 1008044 1788459	No Classification	0.5	5.61	2.81	<0.01
343-60-7807-3 Silver Grey Primer Mankiewicz 1597352	Primer/Fill Primer	1.75	0.15	0.26	<0.01
BAC7363 White FST Mankiewicz 1788912 346-57	Topcoat	5.25	1.11	5.83	<0.01
S.W. W00503 (3,1)	Corrosion Prevention System	0.25	4.52	1.13	<0.01
Akzo 1611206 Silver (3,1) 4002-A21M-2	Corrosion Prevention System	1	3.8	3.80	<0.01
ECL-SG-1165 (3,1)	Corrosion Prevention System/Topcoat	1.25	3.5	4.38	<0.01
TS-1-BK1 Hentzen Black (3,1)	Anti-Chafe Coating	1.5	3.5	5.25	<0.01
1056406 Akzo Silver (3,1) 463-6-4	Corrosion Prevention System/Hi-Temp Coating	0.5	5.8	2.90	<0.01
Alumagrip A4952 S.W. 1670354 (3,1)	Topcoat	0.25	3.5	0.88	<0.01
Alumagrip 4200 S.W. 1743778 (3,1)	Topcoat	0.25	3.5	0.88	<0.01
840 Series Marathon White S.W. 1787241 (2,1,1)	Topcoat	1.75	3.5	6.13	<0.01
482-300 S.W. Blue 1003957 (1,1)	Smoothing Compound/ Flexible Primer	0.75	4.21	3.16	<0.01
P9 I&S – Booth No. 9					
Mil-C-85285-17865 Desoto	Epoxy Polyamide Topcoat	0.75	3.5	2.63	<0.01
Mil-C-85285-17925 Deft White 1013313	Primer	0.75	2.29	1.72	<0.01
512X310 1018148	Flexible Primer	61.83	5.42	335.12	0.17

Coating	Classification	Total Usage (gal/yr)	Emission Factor (lb VOC/gal)	VOC Emissions	
				lb/yr	TPY
1769997 2505637 PPG (3,1,1) 26122	Epoxy Polyamide Topcoat	16.5	3.5	57.75	0.03
487-600 White Primer 1010734	Primer	1.5	5.1	7.65	<0.01
P4 I&S – Booth No. 4					
10P4-2 Desoto (10P4-2NF) 1001036	Compatible Substrate Primer	4.69	5.4	25.33	0.01
44-GN-11 Deft GMS 5005 Green Primer 1006128	Primer	0.91	2.87	2.61	<0.01
Deft 17925 White 1013313	Epoxy Polyamide Topcoat	0.13	3.5	0.46	<0.01
10P20-13 1001028	Primer	0.25	2.84	0.71	<0.01
ECL-SG-1165	Corrosion Prevention System/Topcoat	2.5	3.5	8.75	<0.01
1804725 482-300	Smoothing Compound/Flexible Primer	0.25	4.21	1.05	<0.01
W00593	Corrosion Prevention System	1.57	4.52	7.10	<0.01
1787421 Marathon White 1787241	Topcoat	3.9	3.5	13.65	<0.01
1611206 4002-A21M Heat Resist Surfacer	Topcoat	0.61	3.7	2.26	<0.01
1010734 840102 Jet Glo 1804725	Topcoat	1.2	3.5	4.20	<0.01
1003957 482-300	Smoothing Compound/Flexible Primer	1.75	4.21	7.37	<0.01
1056406 463-6-4 Hi-Temp Epoxy Primer	Corrosion Prevention System/Hi-Temp Coating	0.15	5.8	0.87	<0.01
1540340 AZ634-2	Temp Protective Coating	0.05	0	0.00	0.00
1010734 487-600	Compatible Substrate Primer	5.29	5.1	26.98	0.01
TS-1-BK1	Anti-Chafe Coating	0.65	3.99	2.59	<0.01
833K086 1780515	Fuel Tank Coating	0.05	3.28	0.16	<0.01
P1 NTR - Booth No. 1					
10P4-2 / EC-117 G850	Compatible Substrate Primer	59.31	5.4	320.27	0.16
482-300 / 120-900	Smoothing Compound/Flexible Primer	0.5	5.1	2.55	<0.01
487-600/120-900	Compatible Substrate Primer	149.5	5.1	762.45	0.38
570-566 / 578-520 Jet Glo	Corrosion Prevention System	2.44	4.4	10.74	<0.01
TS1-BK1/PH-15 Axon	Anti-Chafe Coating	6.69	3.5	23.42	0.01
W00593/571-081 S.W.	Corrosion Prevention System	0.25	4.15	1.04	<0.01
840-505/084081/080A05 S.W.840-103 840102	Topcoat	145.95	3.5	510.83	0.26
8B6/50C3A/66C20	Rain Erosion Resistant Coating	50.25	5.3	266.33	0.13
n4002A21M 0200T 106 66C20 23T3 Akzo	Topcoat	5	3.7	18.50	<0.01
ECL-SG-1165/PC233/TR113 Akzo	Corrosion Prevention System/Topcoat	2.25	3.5	7.88	<0.01
MPK Cleanup (Solvent Usage)	N/A	96.75	6.7	648.23	0.32

Coating	Classification	Total Usage (gal/yr)	Emission Factor (lb VOC/gal)	VOC Emissions	
				lb/yr	TPY
53055GEP / 17036 GEP 53655GEP/17060 NTR MS-0901	Compatible Substrate Primer	90.99	2.63	239.30	0.12
TS-1-W15/PH-15	Anti-Chafe Coating	35.06	3.94	138.14	0.07
44GN098	Primer	4	1.11	4.44	<0.01
03W127BF	Topcoat	1	3.5	3.50	<0.01
P2 NTR – Booth No. 2					
10P4-2 / EC-117 G850	Compatible Substrate Primer	6.24	5.4	33.70	0.02
463-6-4/X-306	Corrosion Prevention System/Hi-Temp Coating	0.16	5.8	0.93	<0.01
487-600 / 129-900	Corrosion Prevention System	76.13	5.5	418.72	0.21
570-566 / 578-520 Jet Glo	Corrosion Prevention System	0.13	4.4	0.57	<0.01
ECL-SG-1165/PC233/TR113	Corrosion Prevention System/Topcoat	0.13	3.5	0.46	<0.01
TS1-BK1 / PH-15 Axon	Anti-Chafe Coating	11.43	3.5	40.01	0.02
8B6A/50C3A	Rain Erosion-Resistant Coating	16.88	5.3	89.46	0.04
n4002A21M 0200T 106 66C20 23T3 Akzo	Topcoat	0.26	3.7	0.96	<0.01
53055GEP/17036 GEP MS-0901-1	Compatible Substrate Primer	19.04	2.63	50.08	0.03
840103/818001/840A05 840102	Topcoat	40.92	3.5	143.22	0.07
03W127BF	Topcoat	8.25	3.5	28.88	0.01
44GN098	Primer	30.25	1.04	31.46	0.02
833K086	Fuel Tank Coating	0.59	3.28	1.94	<0.01
P16 I&S - Booth No. 13					
Duro-lak sealer 1009645/1009647 693 Urethane 666B Cat	N/A	37.25	5.66	210.84	0.11
P17 I&S - Booth No. 14					
Durolak Sealer 1009645/1009647 693 Urethane 666B Cat	N/A	15.88	5.66	89.88	0.04
Performance Black 1687944/1689350/MAK	N/A	0.75	4.9	3.68	<0.01
Polane Chablis 1751594	N/A	1.25	4.9	6.13	<0.01
Garystone 176235 Jet Flex	N/A	0.31	2.3	0.71	<0.01
P18 I&S - Booth No. 15					
Performance Gray (7,1,1) 1696534/1689350/1689361/MAK	No Classification	0.2	4.9	0.98	<0.01
Jetflex Intermixes 1733472	No Classification	0.12	2.3	0.28	<0.01
P23 I&S - Release Agent Booth					
MEK (1709638)	Release Agent	496.13	6.71	3,326.55	1.66
TOTALS				**34,680.09**	**17.21**

Combustion Units

Emission estimates for the combustion units are based on AP-42 (7/98), Tables 1.4-1, 1.4-2, and 1.4-3 for commercial boilers, the total rating shown, and a fuel heating value of 1,020 BTU/SCF.

Combustion Unit Emission Factors

Total Rating (MMBTUH)	NOx (lb/MMSCF)	CO (lb/MMSCF)	VOC (lb/MMSCF)
85.30	100.0	84.0	5.5

Emissions from All Combustion Units

NO_X		CO		VOC	
lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
8.36	36.63	7.02	30.77	0.46	2.02

Additional Equipment

Three (3) small booths are involved in wood construction. A common bench collection system rated at 20,000 SCFM accumulates 35 tons of waste per year. Because the efficiency of the filter is 99.5%, emissions of PM_{10} are only 0.17 TPY. Five sanding booths each rated at 5,500 SCFM dispose of 25 TPY total. Their efficiency is also 99.5%, so emissions of PM_{10} are approximately 0.12 TPY total. Two sanding booths each rated at 3,000 SCFM dispose of 5.5 tons per year total. Their efficiency is 99%, so emissions of PM_{10} are approximately 0.06 TPY total.

Facility-Wide Emissions

The following tables show facility-wide emissions. PM_{10}, SO_2, and HAP emissions are based on actual data from the year 2018.

Pollutant	Emissions (TPY)
NO_X	36.63
CO	30.77
VOC	19.23
PM_{10}	0.37
SO_2	0.03

HAPs	Emissions (TPY)
Ethylbenzene	0.02
Formaldehyde	<0.01
Hexane	0.13
Methyl isobutyl ketone	0.04
Toluene	0.23
1,6-Diisocyanatohexane	<0.01
Methanol	0.11
Styrene	<0.01

HAPs	Emissions (TPY)
Trichloroethylene	2.69
Chromium (VI)	0.06
Xylene	0.16
Total HAPs	**3.45**

The controlled emissions are below the major source threshold of 100 TPY for each of the criteria pollutants, 10 TPY for a single HAP, and 25 TPY for any combination of HAPs. Therefore, the facility is capable of operating as a synthetic minor source. The applicant has requested emission limits equal to the major source thresholds. The permit establishes limits for those pollutants which have the possibility of exceeding the major source thresholds (NO_X, CO, VOC, and HAPs).

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 listed in OAC 252:100, Appendix Q. These requirements are addressed in the "Federal Regulations" section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Subchapter 3 enumerates the primary and secondary ambient air quality standards and the significant deterioration increments. 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. Emission inventories were submitted and fees paid for previous years as required.

OAC 252:100-7 (Permits for Minor Facilities) [Applicable]
Subchapter 7 sets forth the permit application fees and the basic substantive requirements of permits for minor facilities. This project meets the conditions for a minor facility operating permit because there is no emission of any regulated pollutant of 100 TPY or more and HAP emissions do not exceed the 10/25 TPY threshold. As such, major source BACT consideration and public review are not required.

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 units, with emission limits based on maximum design heat input rating. Fuel-burning unit is defined in OAC 252:100-19 as any internal combustion engine or gas turbine, or other combustion device used to convert the combustion of fuel into usable energy. Thus, the combustion units are subject to the requirements of this subchapter. Appendix C specifies a PM emission limitation of 0.60 lb/MMBTU for all equipment at this facility with a heat input rating of 10 MMBTUH or less. Each of the many small combustion units is rated at less than 10 MMBTUH. Table 1.4-2 of AP-42 (7/98) lists natural gas total PM emissions to be 7.6 lb/MMSCF or about 0.0076 lb/MMBTU, which is in compliance.
Section 19-12 limits particulate emissions from new and existing emission points in an industrial process to lb/hr values determined by process weight (see Appendix G). Based on the process weight rates and emissions for coating, sanding, and wood construction, none of the process weight rates or emissions are significant (0.05 TPH or 0.55 lb/hr). However, the permit requires the use of filters to control emissions of PM from the coating, sanding, and wood construction operations.

OAC 252:100-25 (Visible Emissions and Particulates) [Applicable]
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. When burning natural gas, there is very little possibility of exceeding these standards.

OAC 252:100-29 (Fugitive Dust) [Applicable]
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. Coating, sanding, and wood construction booths are equipped with dry filters. Therefore, this facility has negligible potential to violate this requirement under normal operating conditions. The permit requires use of and maintenance of the filters on the coating, sanding, and wood construction booths.

OAC 252:100-31 (Sulfur Oxides) [Applicable]
Part 2 limits the ambient air concentration of hydrogen sulfide (H_2S) emissions from any facility to 0.2 ppm volume (ppmv) (24-hour average) at standard conditions, which is equivalent to 283 $\mu g/m^3$. Fuel-burning equipment fired with pipeline natural gas will not have the potential to exceed the H_2S 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 averaged over 3 hours. The permit requires the use of pipeline natural gas as defined in Part 72 having 0.5 grains TRS/100 SCF to ensure compliance with Subchapter 31.

OAC 252:100-33 (Nitrogen Oxides) [Not Applicable]
This subchapter limits new gas-fired fuel-burning equipment with rated heat input greater than or equal to 50 MMBTUH to emissions of 0.2 lb of NO_X per MMBTU, three-hour average. There are no equipment items that exceed the 50 MMBTUH threshold.

OAC 252:100-35 (Carbon Monoxide) [Not Applicable]
This subchapter affects gray iron cupolas, blast furnaces, basic oxygen furnaces, petroleum catalytic cracking units, and petroleum catalytic reforming units. There are no affected sources.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 5, Section 25, limits the VOC content of coatings used in coating lines and operations. Coating of parts and products is considered under Section 37-25. Owners or operators of sources that emit less than 100 lb VOC per 24-hour day are exempt from the requirements of this Section. VOC emissions from coating and cleaning equipment at this operation will be less than 100 lb for each 24-hr day; therefore, the facility is exempt from the standards of 252:100-37-25(c). A limit has been established in the permit to ensure compliance with the exemption level.
Part 5, Section 25, applies to existing or new aerospace vehicle and component coating operations at aerospace manufacturing, rework, or repair facilities. Coating operations subject to this Section are exempt from the requirements of OAC 252:100-37-25. This Section does not apply to facilities that emit from coating operations less than 100 lb of VOC per 24-hour day, on a monthly average. A limit has been established in the permit to ensure compliance with the exemption level.
Part 7, Section 36, requires fuel-burning equipment to be cleaned, operated, and maintained to minimize VOC emissions. Based on manufacturer's data and good engineering practice, the equipment must not be overloaded, and temperature and available air must be sufficient to provide essentially complete combustion. The drying ovens, boilers, and various insignificant items are designed to provide essentially complete combustion of organic materials.

OAC 252:100-39 (VOC in Nonattainment and Former Nonattainment Areas) [Applicable]
This subchapter imposes additional conditions beyond those of Subchapter 37 on emissions of VOC from new and existing facilities in Tulsa County.
Section 42, Metal Cleaning.
Subsection 42 (b) covers vapor-type metal degreasers, noting standards for construction and operation of such equipment. Paragraph 1 outlines equipment standards including doors and covers in Subparagraph A; safety switches in Subparagraph B; equipment specifications such as freeboard, chillers, etc., in Subparagraph C; and, conspicuous labeling of the equipment in Subparagraph D. Paragraph 2 describes the labeling information required to comply with Subparagraph 1(D). Paragraph 3 lists compliance and recordkeeping criteria. The degreaser has demonstrated compliance with all of these conditions.
Section 46 limits the VOC content of coatings used in industries located in Tulsa County which manufacture and/or coat metal parts and products, such as large farm machinery, small farm machinery, small appliances, commercial machinery, industrial machinery and fabricated metal

products. Architectural coating, aerospace coating, and automobile refinishing are not included. OAC 252:100-37-25(a), coating type (1-5) limits are expressed in pounds (lb) of VOC per gallon of coating-as applied, excluding the volume of any water and exempt organic compounds. If more than one limit listed in the table is applicable to a specific coating, then the least stringent limitation shall be applied. Nordam is an aerospace manufacture, repair, and rework facility that is subject to the coating limits under OAC 252:100-39-47 for aerospace coating operations. There is potential for coatings otherwise not covered under Subchapter 39-47, including any non-aerospace industrial coatings used at the facility, which could be subject to the limits in Subchapter 39-46. Nordam currently does not have any coatings subject to the requirements of Section 39-46 but could become subject to this rule in the future.

Coating Type Limits (As Applied) from OAC 252:100-39

Coating Type	Definition	Limitation (lb VOC/gallon)
Air or Forced Air Dry	A coating that is dried by the use of air or forced warm air at temperatures up to 194°F.	3.5
Clear Coat	A coating that lacks color and opacity or is transparent and uses the undercoat as a reflectant base.	4.3
Extreme Performance	A coating designed for harsh exposure or extreme environmental conditions (e.g., exposure to the weather all of the time, temperature above 200°F, detergents, abrasive and scouring agents, solvents, corrosive atmosphere or similar conditions).	3.5
Powder	A coating that is applied in a finely divided state by various methods, and becomes a continuous, solid film when the metal part or product is moved to an oven for curing.	0.40
Other	All other coatings	3.0

Section 47 covers VOC emissions from aerospace vehicle and component coating operations at aerospace manufacturing, rework, or repair facilities located in Tulsa County that have the potential to emit more than 10 TPY of VOC or actual emissions of 100 lb or more per 24-hour day, on a monthly average, of VOC from coating operations. Coating operations include associated cleaning operations and surface preparation. This facility is subject to this rule. As discussed above, Nordam will comply with the applicable limits of both Subchapters 37 and 39. If a coating can be identified in only one subchapter, then compliance with the limit of that subchapter will be deemed compliance with the other subchapter. A limit has been established in the permit to ensure compliance with the exemption level.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates toxic air contaminants (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. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

VI. FEDERAL REGULATIONS

NSPS, 40 CFR Part 60 [Not Applicable]
Subpart Dc (Small Industrial-Commercial-Institutional Steam Generating Units) affects steam generating units constructed after June 9, 1989, and with capacity between 10 and 100 MMBTUH and additional PM standards for affected facilities constructed after February 28, 2005. The largest unit at this facility is smaller than 10 MMBTUH.

NESHAP, 40 CFR Part 61 [Not Applicable]
There are no emissions of any of the regulated pollutants: asbestos, benzene, beryllium, coke oven emissions, inorganic arsenic, mercury, radionuclides, and vinyl chloride.

NESHAP, 40 CFR Part 63 [Subparts T, HHHHHH, and WWWWWW Applicable]
Subpart T (Halogenated Solvent Cleaning) affects the vapor degreaser. The facility uses the alternative standard of 40 CFR §63.464 to demonstrate compliance. Since the machine has a solvent/air interface, §63.464(a)(1) sets out the relevant information. A log of solvent additions and deletions must be maintained, and these data must be used to show that the emission limit of Table 5 of this subpart is met. The Table 5 standard for batch machines is a rolling three-month average not to exceed 150 kg/m^2 or 30.73 lb/ft^2/month. For this machine, with an interface area of 7,258 in^2, emissions shall not exceed 1,549 lb/month, which is approximately 9.28 TPY. Measurement and calculation methods are described in 40 CFR §63.465(b) & (c) and are referenced in the Specific Conditions.

Subpart GG (Aerospace Manufacturing and Rework Facilities) applies to facilities engaged, either in whole or in part, in the manufacture or rework of commercial, civil, or military aerospace vehicles

or components and that are major sources as defined in §63.2. Note that this facility is not a general aviation rework facility, as that term is defined in §63.742. Additionally, the facility is no longer a major source as defined in §63.2.

Subpart JJ (Wood Furniture Manufacturing Operations) establishes emission limits and work practice standards for each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source. This subpart is no longer applicable because the facility is not a major source.

Subpart MMMM (Surface Coating of Miscellaneous Metal Parts and Products) affects facilities engaged in the surface coating of miscellaneous metal parts and products at a major source. This subpart is not applicable because the facility is not a major source of HAP emissions.

Subpart PPPP (Surface Coating of Plastic Parts and Products) affects facilities engaged in the surface coating of plastic parts and products at a major source. This subpart is not applicable because the facility is not a major source of HAP emissions.

Subpart DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters at Major Sources of HAPs). The facility was previously subject to this subpart due to operation of industrial, commercial, or institutional boiler(s) or process heater(s), as defined in §63.7575, located at, or part of, a major source of HAP. However, the subpart is no longer applicable because the facility is not a major source of HAP.

Subpart HHHHHH (Paint Stripping and Miscellaneous Surface Coating Operations) establishes emission standards for HAP for area sources involved in: (a) paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl) in paint removal processes; (b) autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations; or (c) spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP, to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment. Target HAP containing coating means a spray-applied coating that contains any individual target HAP that is an Occupational Safety and Health Administration (OSHA)-defined carcinogen as specified in 29 CFR § 1910.1200 at a concentration greater than 0.1 percent by mass [Cr, Pb, Ni, Cd], or greater than 1.0 percent by mass for any other individual target HAP compound [Mn]. Because the facility operations include spray application of the target HAP, it is an affected source. Requirements concerning spray application of affected coatings are found in 40 CFR §63.11173. They require that all painters must be certified as to the application of the coating as well as the proper setup and maintenance of the equipment involved. All coating must be performed with guns that satisfy standards described, and all coating must be applied in booths that satisfy requirements as to design, including the filter mechanisms used. Information about notifications is found in §63.11175, reporting is covered in §63.11176, and recordkeeping is discussed in §63.11177. The facility is an existing source and has certified compliance with the standards. The permit incorporates all applicable requirements.

Subpart JJJJJJ (Industrial, Commercial, and Institutional Boilers) affects boilers located at, or part of, area sources of HAPs. According to 40 CFR §63.11195, gas-fired boilers are not subject to this subpart. The facility is an area source of HAP; however, because, the boilers on-site are natural gas-fired, this subpart is not applicable.

Subpart WWWWWW (Area Source Standards for Plating and Polishing Operations) affects owners and operators of plating and polishing facilities that are area sources of hazardous air pollutants (HAP) and are engaged in one or more of the following processes: (i) Electroplating other than chromium electroplating (i.e., non-chromium electroplating); (ii) Electroless or non-eletrolytic plating; (iii) Other non-electrolytic metal coating processes, such as chromate conversion coating, nickel acetate sealing, sodium dichromate sealing, and manganese phosphate coating; and thermal spraying; (iv) Dry mechanical polishing of finished metals and formed products after plating or thermal spraying; (v) Electroforming; (vi) Electropolishing. The subpart applies to facilities that use or have emissions of compounds of one or more plating and polishing metal HAP, which are compounds of cadmium, chromium, lead, manganese, and nickel, as well as pure metallic forms of all except lead. Standards and management practices are listed in 40 CFR §63.11507. The facility is an existing source engaged in chrome conversion and has certified compliance with the standards. The permit incorporates all applicable requirements.

Subpart XXXXXX **(**Area Source Standards for Nine Metal Fabrication and Finishing Source Categories) 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) and perform dry abrasive blasting, machining, dry grinding and polishing, spray painting, or welding. MFHAP means any material that contains cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal) and contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material. The nine source categories described in Table 1 of this subpart are listed below with their potential SIC/NAICS Codes:

	EPA Source Category	**SIC Description**	**SIC Code**	**NAICS Code**	**NAICS Description**
1	Electrical & Electronic Equipment Finishing Ops	Motors & Generators Mfg.	3621	335312	Motor & Generator Mfg.
		Electrical Machinery, Equipment, & Supplies, NEC	3699	335999	All Other Misc. Electrical Equipment & Component Mfg.
2	Fabricated Metal Products, NEC	Fabricated Metal Products, NEC	3499	332117	Powder Metallurgy Part Mfg.
		Fabricated Metal Products, NEC	3499	332999	All Other Miscellaneous Fabricated Metal Product Mfg.
3	Fabricated Plate Work (Boiler Shops)	Fabricated Plate Work & Boiler Shops	3443	332313	Plate Work Mfg.
				332410	Power Boiler & Heat Exchanger Mfg.
				332420	Metal Tank (Heavy Gauge) Mfg.
4	Fabricated Structural Metal Mfg.	Fabricated Structural Metal Fabrication	3441	332312	Fabricated Structural Metal Mfg.

	EPA Source Category	SIC Description	SIC Code	NAICS Code	NAICS Description
5	Heating Equipment, except Electric	Heating Equipment, except electric	3433	333414	Heating Equipment (except Warm Air Furnaces) Mfg.
6	Industrial Machinery & Equipment: Finishing Ops	Construction Machinery Manufacturing	3531	333120	Construction Machinery Mfg.
		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.

Applicability is determined by the type of work performed by the facility compared to the source category description in the preambles to the proposed and final rules. The SIC/NAICS codes that are provided in the preamble are not intended to be exhaustive but rather to provide a guide for determining facilities that are likely to be affected. If the facility SIC/NACIS code combination is not identified in the SIC/NAICS table provided as a guide, that facility may likely not be covered by this subpart.

Dry grinding and dry polishing with machines means grinding or polishing without the use of lubricating oils or fluids in fixed or stationary machines. Hand grinding, hand polishing, and bench top dry grinding and dry polishing are not included under this definition. Since the facility's SIC/NACIS code combination (3728/336413) is not included in the potentially affected SIC/NACIS codes and the descriptions of the source categories as shown in Table 1 of this subpart do not match the operations of this facility, this facility is not an affected facility and is not applicable to this subpart.

VII. COMPLIANCE

Inspection

A Full Compliance Evaluation inspection was conducted on November 14, 2018. Drake Hanna of Compliance & Enforcement from the Regional Office at Tulsa conducted the evaluation for the Air Quality Division of the Oklahoma Department of Environmental Quality. Marcy Klass-Jones (Safety Consultant) represented Nordam. No violations of Air Quality rules were noted. The facility was found as described in the permit application.

Tier Classification

This application has been classified as **Tier II** based on the request for a synthetic minor permit in place of renewal of an existing Part 70 operating permit. 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 permit application involves only land owned by the applicant business.

Public Review

Public Notice of Filing of a Tier II application was published in the *Tulsa World* on January 5, 2020. The notice stated that the application was available for review at the Owasso Public Library and at the Oklahoma City office of the Air Quality Division. The information on all permit actions is available for review by the public in the Air Quality section of the DEQ web page at https://www.deq.ok.gov.

The applicant will be required to publish a "Notice of Tier II Draft Permit." On publication of this notice, the 30-day public review period will start. The draft permit will also be available for public review on the Air Quality section of the DEQ web page at https://www.deq.ok.gov.

State Review

This facility is not located within 50 miles of the Oklahoma border.

EPA Review

The proposed permit will be sent to EPA for a 45-day concurrent review by EPA Region 6. This permit has been approved for concurrent review. Unless public comments are received, the draft permit is deemed the proposed permit. If public comments are received, the concurrent review process will not be used, and a revised "proposed" permit addressing public comments will be sent to EPA for a 45-day review period.

Fees Paid

A fee of $7,500 has been paid. This payment covers the amount that the applicant owed for a Part 70 Renewal permit application, which was due on August 19, 2019. Because the application for this permit (No. 2019-1012-O) was submitted on September 12, 2019, after the renewal deadline, Nordam was required to submit the full $7,500 renewal fee.

VIII. SUMMARY

The facility was constructed and is operating as described in the permit application. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues that would prevent issuance of the permit. Issuance of the operating permit is recommended, contingent upon public and EPA review.

PERMIT TO OPERATE
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

The Nordam Group LLC **Permit No. 2019-1012-O**
Nordam Manufacturing Division

The permittee is authorized to operate in conformity with the specifications submitted to Air Quality on September 12, 2019. The Evaluation Memorandum dated July 13, 2021, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein.

1. Emissions from the facility shall not exceed the following limits based on 12-month rolling totals.

Authorized Emissions in TPY

NO_x	CO	VOC	Each HAP	Total HAP
99.9	99.9	99.9	9.9	24.9

   a. Compliance with these limits shall be demonstrated monthly based on a 12-month rolling total.
   b. The determination of VOC and HAP emissions from material usage shall be based on 100% evaporation of the VOC and HAP contents of the materials. The VOCs emitted from these materials shall be calculated as the product of material usage and the VOC content, less documented waste, on a monthly and 12-month rolling total basis. Permittee may choose to omit waste from the calculation and assume that it is all emitted.
   c. The permittee shall be responsible for identifying all HAP contained in the materials used at the facility.

2. VOC emissions from coating operations shall be less than 100 lb for each 24-hr day (daily material usage records; emissions calculated monthly).

3. The permittee shall be authorized to operate the facility continuously, 24 hours per day, every day of the year.

4. The fuel-burning equipment shall be fired only with pipeline natural gas as defined in Part 72 having 0.5 grains TRS/100 SCF to ensure compliance with Subchapter 31. Compliance shall be demonstrated at least once every calendar year using a current gas company bill.

   a. The following table shows each combustion unit, its location, and heat input.

Unit Name	Location	Number of Units / Rating (MMBTUH)
Fulton oil heater (2)	I&S(1)	1 / 6.0, 1 / 4.0
Ovens (8)	I&S	4 / 0.5, 1 / 1.5, 1 / 0.25, 1 / 0.6, 1 / 3.8
Ovens (6)	NTR(2)	1 / 1.5, 2/ 0.75, 2 /1.4, 1 / 3.0
Unit heaters (11)	I&S	6 / 0.4, 5 / 0.125
Boilers (2)	I&S	2 / 8.0
Spray booth	I&S	1 / 3.6
Spray booth	NTR	1 / 3.6
Cleaver-Brooks boilers (2)	I&S	2 / 2.5
Autoclaves (3)	NTR	1 / 3.6, 1 / 3.0, 1 / 2.0
Autoclave (1)	I&S	1 / 3.6
Humidifiers (4)	I&S	3 / 0.476, 1 / 0.119
Roof air & heating units (63)	NTR	Varies(3)

(1) I&S = Interiors and Structures Division
(2) NTR = Nacelle Thrust Reversers
(3) Total rating is 13.375 MMBTUH. The largest unit is rated at 0.268 MMBTUH.

b. Emissions from the combustion units shall be limited by (and shall contribute to) the facility-wide cap emissions identified in Specific Condition 1 as follows.

Combustion Unit Emission Factors

Total Rating (MMBTUH)	NOx (lb/MMSCF)	CO (lb/MMSCF)	VOC (lb/MMSCF)
85.30	100.0	84.0	5.5

Emissions from All Combustion Units

NO_X		CO		VOC	
lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
8.36	36.63	7.02	30.77	0.46	2.02

c. Each calendar month, the applicant shall calculate emissions from the combustion units using emission factors from AP-42 (7/98), Section 1.4 for NOx, CO, and VOC, the heat input ratings of the combustion units, and/or fuel consumption. VOC emissions shall be summed with other emissions for determining compliance with the facility-wide cap.

5. The dry particulate filter systems on booths that spray primers and topcoats containing HAPs shall be maintained in good working order. The differential pressure across the filter banks shall be continuously monitored and the pressure drop (ΔP) read and recorded at least once per shift. If ΔP exceeds or falls below the filter manufacturer's recommended limit(s), the booth shall be immediately shut down and corrective action shall be taken.

6. The vapor degreaser is subject to and shall comply with the requirements of OAC 252:100-39-42(b).
   a. The unit shall have a cover or door that can easily be opened and closed without disturbing the vapor zone.

b. The unit shall have a condenser flow switch and thermostat or equivalent capable of shutting off the sump heat if condenser coolant is not circulating or coolant exceeds VOC manufacturer's recommended level.
c. The unit shall have one or more of the following control devices/techniques.
   1. Freeboard ratio not less than 0.75, i.e., the ratio of the freeboard to the width of the degreaser wherein the term freeboard is defined as the distance from the top of the vapor zone to the top of the degreaser tank.
   2. Refrigerated chiller, i.e., condenser coils in the upper limit of the vapor zone.
   3. Enclosed design, i.e., cover or door is opened only when a part is actually entering or exiting the facility.
   4. A control system demonstrated to have a control efficiency equal to or greater than any of the systems in OAC 252:100-39-42(b)(1)(C).
d. A permanent conspicuous label summarizing operating requirements in OAC 252:100-39-42(b)(2) shall be attached to the unit.

7. The vapor degreaser is subject to the Halogenated Solvent Cleaning MACT (40 CFR Part 63 Subpart T) and shall comply with the requirements of that subpart, including, but not limited, to the following.

   a. Standards are contained in §63.464 and require that a log of solvent additions and deletions be maintained, and that the 3-month rolling average emissions not exceed 150 kg/m^2/month.
   b. Test methods described in §63.465 describe the method of measuring additions and deletions and outline the formulas to be used in calculating the rolling average.
   c. Recordkeeping described in §63.467 requires that all data recorded for use in the calculations, as well as the calculations themselves, as these are described in (a) and (b) preceding, be maintained in written or electronic form for a period of five years from the date of recording.
   d. Required reporting is described in §63.468. These reports include an initial notification of the new machines, as detailed in §63.468(b), an initial statement of compliance, as detailed in §63.468(e), an annual solvent emission report, as detailed in §63.468(g), and semiannual exceedance reports, as detailed in §63.468(h).

8. Spray painting operations at this facility are subject to 40 CFR Part 63, NESHAP Subpart HHHHHH, and shall comply with all applicable provisions of the subpart, including, but not limited to, the following.

a.	§§63.11169, 70, 71	Applicability
b.	§63.11172	Compliance dates
c.	§63.11173	General compliance requirements
d.	§63.11174	What parts of the General Provisions apply to me?
e.	§63.11175	Notifications
f.	§§63.11176, 77, 78	Recordkeeping and reporting
g.	§63.11179	Who implements and enforces this subpart?
h.	§63.11180	Definitions

9. Plating and polishing operations at this facility are subject to 40 CFR Part 63, NESHAP Subpart WWWWWW, and shall comply with all applicable provisions of the subpart, including, but not limited to, the following.

    a. §§63.11504, 05 Applicability
    b. §63.11506 Compliance dates
    c. §63.11507 Standards and management practices
    d. §63.11508 Compliance requirements
    e. §63.11509 Notification, recordkeeping, reporting
    f. §63.11510 What General Provisions apply to this subpart?
    g. §63.11511 Definitions
    h. §63.11512 Who implements and enforces this subpart?
    i. Appendix Table 1

10. The permittee shall keep records of facility operations as listed. These records shall be retained on-site for a period of at least five years following the dates of recording and shall be made available to regulatory personnel upon request.

    a. Calculations to show compliance with TPY limitations in Specific Condition. No. 1 (monthly and 12-month rolling total).
    b. Quantity of coatings/thinners/solvents, and other VOC/HAP materials used (monthly, and 12-month rolling total).
    c. Records, including emissions calculations, adequate to demonstrate compliance with Specific Condition No. 2, on a monthly average.
    d. Records of test and maintenance records per the requirements in OAC 252: 100-39-42(b);
    e. Pressure drop readings for dry filter spray booths (daily, when operating).
    f. For the fuel(s) burned, maintain the appropriate document(s) as specified in Specific Condition No. 4, and updated whenever the supplier changes.
    g. Manufacturer's data for each booth affected by Specific Condition No. 5, showing the recommended range of pressure drop for each filter system.
    h. A current MSDS or Product Data Sheet which documents the volatile organic content having adequate information to calculate the VOC, HAP, and solids maximum content of each coating type.
    i. Records required by 40 CFR Part 63, Subpart T;
    j. Records required by 40 CFR Part 63, Subpart HHHHHH;
    k. Records required by 40 CFR Part 63, Subpart WWWWWW.

11. This permit supersedes all previous Air Quality permits for this facility, which are canceled.

12. No later than 30 days after the issuance of the synthetic minor operating permit, the permittee shall submit to Air Quality Division of DEQ, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of the Part 70 operating permit for the time period between the most recent certification of compliance and the issuance date of the synthetic minor permit.

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]
2. 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. *www.deq.ok.gov* [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]

8. 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]

DRAFT/PROPOSED

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

Permit No. 2019-1012-O

The Nordam Group LLC,

having complied with the requirements of the law, is hereby granted permission to operate the Nordam Manufacturing Division located in Section 33, Township 21N, Range 13E, Tulsa County, Oklahoma, and subject to the standard conditions dated February 13, 2020, and Specific Conditions, both attached.

Division Director, Air Quality Division **Date**

SCOTT A. THOMPSON
Executive Director

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

KEVIN STITT
Governor

The Nordam Group LLC
Attn.: Mr. Steve Dickey
6911 N. Whirlpool Drive
Tulsa, OK 74117

Subject: Operating Permit No. **2019-1012-O**
Nordam Manufacturing Division
AQD Facility ID: No. 2519
Section 33, Township 21N, Range 13E, Tulsa County, Oklahoma

Dear Mr. Dickey:

Air Quality has received the permit application for the referenced facility and completed initial review. This application has been determined to be a Tier II application. In accordance with 27A O.S. 2-14-301 and 302 and OAC 252:4-7-13(c), the enclosed draft permit is now ready for public review. The requirements for public review of the draft permit include the following steps, which you must accomplish.

1. Publish at least one legal notice (one day) of "Notice of Tier II Draft Permit" in at least one newspaper of general circulation within the county where the facility is located. (Instructions enclosed)
2. Provide for public review, for a period of 30 days following the date of the newspaper announcement, a copy of the application and draft permit at a convenient location (preferentially at a public location) within the county of the facility.
3. Send AQD a signed affidavit of publication for the notice(s) from Item #1 above within 20 days of publication of the draft permit. Any additional comments or requested changes you have for the draft permit or the application should be submitted within 30 days of publication.

Thank you for your cooperation in this matter. If we may be of further service, please contact Kayla Cunningham at Kayla.Cunningham@deq.ok.gov or (405) 702-4187.

Sincerely,

Phillip Fielder

Phillip Fielder, P.E.
Chief Engineer
AIR QUALITY DIVISION

Enclosure

NOTICE OF DRAFT PERMIT
TIER II or TIER III AIR QUALITY PERMIT APPLICATION

APPLICANT RESPONSIBILITIES

Permit applicants are required to give public notice that a Tier II or Tier III draft permit has been prepared by DEQ. The notice must be published in one newspaper local to the site or facility. Upon publication, a signed affidavit of publication must be obtained from the newspaper and sent to AQD. Note that if either the applicant or the public requests a public meeting, this must be arranged through the Customer Services Division of the DEQ.

REQUIRED CONTENT (27A O.S. § 2-14-302 and OAC 252:4-7-13(c))

1. A statement that a Tier II or Tier III draft permit has been prepared by DEQ;
2. Name and address of the applicant;
3. Name, address, driving directions, legal description and county of the site or facility;
4. The type of permit or permit action being sought;
5. A description of activities to be regulated, including an estimate of emissions from the facility;
6. Location(s) where the application and draft permit may be reviewed (a location in the county where the site/facility is located must be included);
7. Name, address, and telephone number of the applicant and DEQ contacts;
8. Any additional information required by DEQ rules or deemed relevant by applicant;
9. A 30-day opportunity to request a formal public meeting on the draft permit.

SAMPLE NOTICE on page 2.

SAMPLE NOTICE *(Italicized print is to be filled in by the applicant.)***:**

DEQ NOTICE OF TIER *...II or III...* **DRAFT PERMIT**

A Tier *...II or III...* **application for an air quality** *...type of permit or permit action being sought (e.g., Construction Permit for a Major Facility)...* **has been filed with the Oklahoma Department of Environmental Quality (DEQ) by applicant,** *...name and address.*

The applicant requests approval to *...brief description of purpose of application...* **at the** *...site/facility name ... ...***[proposed to be] located at** *...physical address (if any), driving directions, and legal description including county....*

In response to the application, DEQ has prepared a draft permit [modification] (Permit Number: *...xx-xxx-x...***), which may be reviewed at** *...locations (one must be in the county where the site/facility is located)...* **or at the Air Quality Division's main office (see address below). The draft permit is also available for review in the Air Quality Section of DEQ's Web Page: http://www.deq.ok.gov/**

This draft permit would authorize the facility to emit the following regulated pollutants: *(list each pollutant and amounts in tons per year (TPY))*

The public comment period ends 30 days after the date of publication of this notice. Any person may submit written comments concerning the draft permit to the Air Quality Division contact listed below. [Modifications only, add: **Only those issues relevant to the proposed modification(s) are open for comment.**] **A public meeting on the draft permit [modification] may also be requested in writing at the same address. Note that all public meetings are to be arranged and conducted by DEQ/CSD staff.**

In addition to the public comment opportunity offered under this notice, this draft permit is subject to U.S. Environmental Protection Agency (EPA) review, EPA objection, and petition to EPA, as provided by 40 CFR § 70.8. [For Construction Permits, add: **The requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process. Therefore, no additional opportunity to provide comments or EPA review, EPA objection, and petitions to EPA will be available to the public when requirements from the construction permit are incorporated into the Title V permit.**]

If the Administrator (EPA) does not object to the proposed permit, the public has 60 days following the Administrator's 45 day review period to petition the Administrator to make such an objection as provided in 40 CFR 70.8(d) and in OAC 252:100-8-8(j). Information on all permit actions and applicable review time lines is available in the Air Quality section of the DEQ Web page: http://www.deq.ok.gov/.

For additional information, contact *...names, addresses and telephone numbers of contact persons for the applicant,* **or contact DEQ at: Chief Engineer, Permits & Engineering Group, Air Quality Division, 707 N. Robinson, Suite 4100, P.O. Box 1677, Oklahoma City, OK, 73101-1677. Phone No. (405) 702-4100.**

Department of Environmental Quality (DEQ)
Air Quality Division (AQD)
Acronym List
4-15-21

ACFM	Actual Cubic Feet per Minute
AD	Applicability Determination
AFRC	Air-to-Fuel Ratio Controller
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
BHP	Brake Horsepower (bhp)
BTU	British thermal unit (Btu)
C&E	Compliance and Enforcement
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS	Chemical Abstract Service
CAAA	Clean Air Act Amendments
CC	Catalytic Converter
CCR	Continuous Catalyst Regeneration
CD	Consent Decree
CEM	Continuous Emission Monitor
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
CI	Compression Ignition
CNG	Compressed Natural Gas
CO	Carbon Monoxide or Consent Order
COA	Capable of Accommodating
COM	Continuous Opacity Monitor
D	Day
DEF	Diesel Exhaust Fluid
DG	Demand Growth
DSCF	Dry Standard (At Standard Conditions) Cubic Foot (Feet)
EGU	Electric Generating Unit
EI	Emissions Inventory
EPA	Environmental Protection Agency
ESP	Electrostatic Precipitator
EUG	Emissions Unit Group
EUSGU	Electric Utility Steam Generating Unit
FCE	Full Compliance Evaluation
FCCU	Fluid Catalytic Cracking Unit
FIP	Federal Implementation Plan
FR	Federal Register
GACT	Generally Achievable Control Technology
GAL	Gallon (gal)
GDF	Gasoline Dispensing Facility
GEP	Good Engineering Practice
GHG	Greenhouse Gases
GR	Grain(s) (gr)
H_2CO	Formaldehyde
H_2S	Hydrogen Sulfide
HAP	Hazardous Air Pollutants
HC	Hydrocarbon
HCFC	Hydrochlorofluorocarbon
HFR	Horizontal Fixed Roof
HON	Hazardous Organic NESHAP
HP	Horsepower (hp)
HR	Hour (hr)
I&M	Inspection and Maintenance
IBR	Incorporation by Reference
ICE	Internal Combustion Engine
LAER	Lowest Achievable Emission Rate
LB	Pound(s) [Mass] (lb, lbs, lbm)
LB/HR	Pound(s) per Hour (lb/hr)
LDAR	Leak Detection and Repair
LNG	Liquefied Natural Gas
LT	Long Ton(s) (metric)
M	Thousand (Roman Numeral)
MAAC	Maximum Acceptable Ambient Concentration
MACT	Maximum Achievable Control Technology
MM	Prefix used for Million (Thousand-Thousand)
MMBTU	Million British Thermal Units (MMBtu)
MMBTUH	Million British Thermal Units per Hour (MMBtu/hr)
MMSCF	Million Standard Cubic Feet (MMscf)
MMSCFD	Million Standard Cubic Feet per Day
MSDS	Material Safety Data Sheet
MWC	Municipal Waste Combustor
MWe	Megawatt Electrical
NA	Nonattainment
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NH_3	Ammonia
NMHC	Non-methane Hydrocarbon
NGL	Natural Gas Liquids
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NOI	Notice of Intent
NSCR	Non-Selective Catalytic Reduction
NSPS	New Source Performance Standards
NSR	New Source Review

O_3	Ozone
O&G	Oil and Gas
O&M	Operation and Maintenance
O&NG	Oil and Natural Gas
OAC	Oklahoma Administrative Code
OC	Oxidation Catalyst
PAH	Polycyclic Aromatic Hydrocarbons
PAE	Projected Actual Emissions
PAL	Plant-wide Applicability Limit
Pb	Lead
PBR	Permit by Rule
PCB	Polychlorinated Biphenyls
PCE	Partial Compliance Evaluation
PEA	Portable Emissions Analyzer
PFAS	Per- and Polyfluoroalkyl Substance
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with an Aerodynamic Diameter <= 2.5 Micrometers
PM_{10}	Particulate Matter with an Aerodynamic Diameter <= 10 Micrometers
POM	Particulate Organic Matter or Polycyclic Organic Matter
ppb	Parts per Billion
ppm	Parts per Million
ppmv	Parts per Million Volume
ppmvd	Parts per Million Dry Volume
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
psia	Pounds per Square Inch Absolute
psig	Pounds per Square Inch Gage
RACT	Reasonably Available Control Technology
RATA	Relative Accuracy Test Audit
RAP	Regulated Air Pollutant or Reclaimed Asphalt Pavement
RFG	Refinery Fuel Gas
RICE	Reciprocating Internal Combustion Engine
RO	Responsible Official
ROAT	Regional Office at Tulsa
RVP	Reid Vapor Pressure
SCC	Source Classification Code
SCF	Standard Cubic Foot
SCFD	Standard Cubic Feet per Day
SCFM	Standard Cubic Feet per Minute
SCR	Selective Catalytic Reduction
SER	Significant Emission Rate
SI	Spark Ignition
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SNCR	Selective Non-Catalytic Reduction
SO_2	Sulfur Dioxide
SOx	Sulfur Oxides
SOP	Standard Operating Procedure
SRU	Sulfur Recovery Unit
T	Tons
TAC	Toxic Air Contaminant
THC	Total Hydrocarbons
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulates
TV	Title V of the Federal Clean Air Act
$\mu g/m^3$	Micrograms per Cubic Meter
US EPA	U. S. Environmental Protection Agency
VFR	Vertical Fixed Roof
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRT	Vapor Recovery Tower
VRU	Vapor Recovery Unit
YR	Year
2SLB	2-Stroke Lean Burn
4SLB	4-Stroke Lean Burn
4SRB	4-Stroke Rich Burn