Commonwealth of Virginia

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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Stefanie K. Taillon
Secretary of Natural and Historic Resources

Michael S. Rolband, PE, PWD, PWS Emeritus
Director

Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Aerojet Rocketdyne, Inc.
Facility Name:	Aerojet Rocketdyne, Inc. – Orange County Facility
Facility Location:	7499 Pine Stake Road Culpeper, Virginia 22701
Registration Number:	40743
Permit Number:	NRO-40743

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act

_____ _____

Effective Date Expiration Date

_____ _____

Justin A. Wilkinson
Regional Air Permit Manager

Signature Date

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Facility Information

Permittee
Aerojet Rocketdyne, Inc.
7499 Pine Stake Road
Culpeper, Virginia 22701

Responsible Official
Julie Wikete
Director, Operations Management

Facility
Aerojet Rocketdyne, Inc. - Orange County Facility
7499 Pine Stake Road
Culpeper, Virginia 22701

Contact Person
J. Christopher Livingston
Senior Specialist, EHS
(540) 854-2045

County-Plant Identification Number: 51-137-00022

Facility Description: NAICS Codes 336415 (Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing) and 332999 (All Other Miscellaneous Fabricated Metal Product Manufacturing) - The facility manufactures and reworks rocket motors and associated components. The facility also manufactures propellants which it periodically test fires, and conducts research and development (R&D) of propellant and propellant ingredients, rocket motors and associated components. After the shutdown of the Thermal Treatment Facility (EU-01(B)), the operation is no longer designated a major source for criteria pollutants but remains a major source for hazardous air pollutants (HAPs), from rocket testing, coatings and cleaning solvents.

Emission Units
Process Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity [1]	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EU-01(A)	-	Six Bay Rocket Test Facility Test Bay #1 Test Bay #2 Test Bay #2.5 Test Bay #3 Test Bay #4 Test Bay #6 with custom-built propane-fired steam generating unit	2,000 lbs/hr Solid Propellant 2,000 lbs/hr Solid Propellant 50 lbs/hr Solid Propellant 2,000 lbs/hr Solid Propellant 50 lbs/hr Solid Propellant 2,000 lbs/hr Solid Propellant 6.86 MMBtu/hr (75 gal/hr propane)	-	-	-	mNSR 3/13/24
EU-01(A)	SG-1, SG-2	Rocket Test Facility, One Test Bay #5 (Orange Altitude Test Site "OATS"), with two 8.45 MMBtu/hr propane-fired Vapor Power steam generating units	100 lbs/hr Solid Propellant, 16.9 MMBtu/hr (186 gal/hr propane)	-	-	-	mNSR 3/13/24
EU-02	PB-1, PB-2, & PB-3	Surface Coatings & Adhesive Application Operations (Facility Wide)	9 gal/hr Coatings & Adhesives	High-density filters for paint booth overspray	PB-1A, PB-2A & PB-3A	PM	mNSR 3/13/24

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity [1]	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EU-03	-	Hand-Wipe & Other Cleaning Operations	1 gal/hr of cleaning solvents	-	-	-	mNSR 3/13/24
EU-04A/B/C	-	Explosives Drying Operations with modified RDX drying oven (A/B) and RDX Dryer (C)	500 lb/hr Explosives (A) 125 lb/hr Explosives (B) 125 lb/hr Explosives (C)	-	-	-	mNSR 3/13/24
EU-05A/B	-	Two Solvent Cleaning Machines, vapor degreasers, One Phillips Model 13409, and One Baron Blakeslee Model ZV-733-EW	1 gal/hr cleaning solvents, each	-	-	-	mNSR 3/13/24
EU-06	-	Sparging and Drying Operations	20 lb/hr of solvent	-	-	-	mNSR 3/13/24
EU-07A/B	OX-1 thru OX-4	Four Oxidizer Grinders (A), and Two Oxidizer Grinders (B) [2]	500 lbs/hr of Oxidizers (A) 1,600 lbs/hr of Oxidizers (B)	Dry Particulate Filter System [2] for any unit vented to atmosphere	OX-1A thru OX-4A	PM	mNSR 3/13/24
EU-08A/B/C [3]	GB-1 thru GB-3, GB-5 thru GB-9	Nine Grit Blast Machines [3], with four rated at 200 lbs/hr (A); one TP Tools model 1836 rated at 255 lbs/hr (B); two Trinco	455 lbs/hr Blasting Media (A/B) 1,200 lbs/hr Blasting Media (C)	Dry Particulate Filter System	GB-1A thru GB-3A, GB-5A, thru GB-9A	PM	mNSR 3/13/24

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity [1]	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		model 36/PT400 rated at 130 lbs/hr each, and two Trinco model 36X, rated at 470 lbs/hr each (C)					
EU-09	PM-1 thru PM-4	Propellant Machining Operations [4], consisting of - Lathes and mills - Cutback Saw, and - Two Cutback Machines	500 lbs/hr Propellant (total) 50 lbs/hr Propellant, 150 lbs/hr Propellant 150 lbs/hr Propellant, each	Dry Particulate Filter at PM-1, Wet Suppression at PM-2 thru PM-4	PM-1A thru PM-4A	PM	mNSR 3/13/24
EU-10	IM-1 thru IM-3	Insulation Machining Operations	50 lbs/hr Insulated Materials	Dry Particulate Filter System	IM-1A thru IM-3A	PM	mNSR 3/13/24
EU-11	RM-1 thru RM-3	Phenolic and Rubber Parts Machining Operations	200 lbs/hr Phenolic & Rubber Components	Dry Particulate Filter System	RM-1A thru RM-3A	PM	mNSR 3/13/24
EU-13 A/B	VH-1, VH-2	Motor Case Lining Operations	30 lb/batch of liner materials each (A/B)	-	-	-	mNSR 3/13/24
EU-14A	FP1	Caterpillar model 3208 fire pump engine (manufactured 1990)	235 horsepower (hp)	-	-	-	-
EU-14B	GEN1	Caterpillar model 3406 diesel engine generator set (manufactured 1990)	402 hp, 300 kilowatts (kW)	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity [1]	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EU-14C	GEN2	Onan model LG34T diesel engine generator set (manufactured 1990)	56 hp, 42 kW	-	-	-	-
EU-14D	GEN3	Cummins model 80DGDA diesel engine generator set (manufactured 2005)	107 hp, 80 kW	-	-	-	-
EU-14E	GEN4	Yanmar model GRW50 diesel engine generator set (manufactured 2011)	67 hp, 50 kW	-	-	-	-
EU-14F	GEN5	Caterpillar model ISO8528 diesel engine generator set (manufactured 2013)	762 hp, 500 kW	-	-	-	-
EU-14G	GEN6	Generac model 10616690100 diesel engine generator set (manufactured 2018)	166 hp, 135 kW	-	-	-	-
EU-14H	GEN7	Generac model G0070432 propane engine generator set (manufactured 2021)	30 hp, 22 kW	-	-	-	-
EU-14I	GEN8	Generac model G0070360 propane	22 hp, 16 kW	-	-	-	-

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity [1]	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		engine generator set (manufactured 2021)					
EU-14J	GEN9	Generac model G0069980 propane engine generator set (manufactured 2021)	10 hp, 7.5 kW	-	-	-	-
EU-14K	GEN10	Caterpillar model D60-4LC diesel engine generator set (manufactured 2022)	98 hp, 60 kW	-	-	-	-

1. The size/rated capacity is provided for informational purposes only, and is not an applicable requirement.
2. Four (4) existing oxidizer grinders (A) vent inside building. Two (2) of the oxidizers (OX-1 and OX-2) may be vented to the atmosphere in the future. If so, then the stacks for these units will be equipped with dust collectors. Two (2) new (B) oxidizer grinders (OX-3 and OX-4) may be vented to the atmosphere, which will require them to be equipped with dust collectors.
3. One of the grit blast machines (A) is vented inside the production building.
4. Propellant lathes are not vented to the atmosphere. One unit (PM-1) may be vented outdoors in the near future. Propellant saw (PM-2) is vented after "wet box" dust suppression system. One propellant cut-back machine (PM-3) is vented after "wet box" dust suppression system. The other propellant cut-back machine (PM-4) with "wet box" is not vented (emissions inside building). New propellant machining equipment (PM-5 and PM-6), part of EU-09, will not generate air emissions.

Fuel Burning Equipment Requirements – Rocket Test Facility [EU-01(A)]

Limitations

1. Fuel Burning Equipment Requirements – The test-firing events at the rocket test facility [EU-01(A)] are restricted to rocket propellants and liquefied propane (supplemental fuel for "Air Facility" and "OATS"). The usage of propane shall not exceed 447,500 gallons per year, calculated monthly as the sum of each consecutive twelve-month period. (9VAC5-80-110 and Condition 16 of 3/13/24 mNSR Permit)

Monitoring and Recordkeeping

2. Fuel Burning Equipment Requirements – The permittee shall conduct biennial tune-ups on each of the two steam generators (boilers) at "OATS" test bay #5 [EU-01(A)]. As stated in 40 CFR 63.7515, each tune-up shall be conducted not more than 25 months after (initial startup, and thereafter from the date of) the previous tune-up to demonstrate continuous compliance in accordance with the procedures specified in 40 CFR 63.7540 paragraphs (a)(10)(i) through (vi), which is summarized as the following:

    a. Inspect the burner, and clean or replace any components of the burner as necessary;

    b. Inspect the flame pattern and adjust the burner as needed to optimize the flame pattern;

    c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly;

    d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject;

    e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

    f. Maintain a report on-site (and for submittal to DEQ, upon request) containing the following information:

        i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

        ii. A description of any corrective actions taken as a part of the tune-up.

(9VAC5-80-110, 40 CFR 63.7515(d), and 40 CFR 63.7540(a) (10) and (11))

3. Fuel Burning Equipment Requirements – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to:

   a. The yearly quantity (specified in gallons) of propane (supplemental fuel) combusted at the rocket test facility [EU-01(A)], calculated monthly as the sum of each consecutive twelve-month period.

   b. A copy of each notification and report submitted to meet the requirements of 40 CFR 63 (MACT) Subpart DDDDD, which include Notification of Initial Compliance and biennial reports of tune-ups completed for each of the two propane-fired heaters at "OATS" test bay #5 [EU-01(A)], as stated in Condition 4.

   These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
   (9VAC5-80-110, 40 CFR 63.7545(e), 40 CFR 63.7555(a) and Condition 28.f. of 3/13/24 mNSR Permit)

Reporting

4. Process Equipment Requirements – A Compliance Report shall be submitted biennially (every two years) on the tune-up performed on each propane-fired process heaters [EU-01(A)], as stated in Condition 2, no later than January 31 of the year after the tune-up completion. The Compliance Report may be added to the semi-annual report submitted to meet MACT Subpart GG (Conditions 27 and 37). The compliance report shall also include information specified in 40 CFR 63.7550(c)(1), which are summarized as following:

   a. Company and Facility name and address.
   b. Process unit information, emission limitations and operating parameter limitations.
   c. Date of report and beginning and ending dates of the reporting period.
   d. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct biennial tune-up according to 40 CFR 63.7540(a) (11). (Include the date of the most recent burner inspection if it was not done biennially and was delayed until the next scheduled or unscheduled unit shutdown.)
   e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

   The report shall be submitted to the Regional Air Compliance Manager of DEQ's NRO at the following address:

Regional Air Compliance Manager
Department of Environmental Quality (DEQ)
Northern Regional Office (NRO)
13901 Crown Court
Woodbridge, VA 22193

Also, an electronic copy shall be sent to the EPA via the CEDRI (Compliance and Emissions Data Reporting Interface). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) at https://cdx.epa.gov, as stated in 40 CFR 63.7550(h).

In case of EPA electronic system outage or failure, the report may be sent also to:

Chief, Air Section
United States Environmental Protection Agency
Region III, Enforcement & Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103-2852

(9VAC5-80-110, 40 CFR 63.7550, and 40 CFR 63, MACT Subpart DDDDD, Table 9)

Process Equipment Requirements – Rocket Test Facility [EU-01(A)]

Limitations

5. Process Equipment Requirements – Except as specified in Condition 6, the maximum quantity of propellant fired per test firing event at the rocket test facility [EU-01(A)] shall not exceed 2,000 pounds. The quantity of propellant test fired at the rocket test facility [EU-01(A)] shall not exceed 2,000 pounds in any one 24-hour period. The quantity of propellant fired at the rocket test facility [EU-01(A)] shall not exceed 5.3 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 14 of 3/13/24 mNSR Permit)

6. Process Equipment Requirements – The maximum quantity of the worst-case lead-based propellant fired per test firing event at the rocket test facility [EU-01(A)] shall not exceed 700 pounds. The quantity of the worst-case lead-based propellant test fired at the rocket test facility shall not exceed 700 pounds in any one 24-hour period.
(9VAC5-80-110 and Condition 15 of 3/13/24 mNSR Permit)

7. Process Equipment Requirements – Emissions from the operation of the rocket test facility [EU-01(A)] shall not exceed the limits specified below (where used, footnote indicates

averaging period). The annual emissions shall be calculated monthly as the sum of each consecutive twelve-month period.

Pollutant	Lbs/hr[a]	Tons/year
Particulate Matter, PM_{10} & $PM_{2.5}$	-	3.7
Total Nitrogen Oxides (as Total NOx)	-	3.0
Sulfur Dioxide	-	0.3
Carbon Monoxide (CO)	-	5.1
Volatile Organic Compounds (VOCs)	-	0.4
Cadmium	0.3	0.01
Chlorine	32.4	0.09
Chromium (Total)	2.8	0.01
Hydrogen Chloride	593.8	1.6
Hydrogen Fluoride	1.6	0.01
Lead	13.7	0.1

[a] hourly average

These emissions are derived from the estimated overall emission contribution from operating limits and emission factors supplied by the permittee. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits shall be determined as stated in Conditions 2, 5 - 6, and 9.
(9VAC5-80-110 and Condition 22 of 3/13/24 mNSR Permit)

8. Process Equipment Requirements – Particulate matter (PM) and PM-10 emissions from the operation of the rocket motor test facility [EU-01(A)] shall not exceed 714 lbs/hr.
(9VAC5-80-110, 9VAC5-220-30 B and Condition 23 of 3/13/24 mNSR Permit)

Recordkeeping

9. Process Equipment Requirements – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO). These records shall include the following:

   a. Start time, date, and quantity (in pounds) of propellant fired per testing event at the rocket test facility [EU-01(A)]. The end time of the test event shall be recorded whenever the duration of the event lasts longer than one hour.

   b. Maximum hourly per month, any 24-hour period, monthly and annual totals of propellant fired (in pounds and/or tons) in the rocket test facility [EU-01(A)]. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period.

c. The maximum quantity of the worst-case lead-based propellant fired per test firing event.

d. Hourly calculated emissions (in pounds) of particulate matter (PM) and PM-10 for each rocket testing event.

e. Monthly and annual totals of liquefied propane (in gallons) used as a supplemental fuel. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period.

f. Hourly calculated emissions for lead, hydrogen chloride, chlorine, cadmium, total chromium, and hydrogen fluoride per rocket testing event.

g. Monthly and annual calculated emissions (in pounds and/or tons) of each pollutant listed in Condition 7. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period. Calculation methods approved by the Regional Air Compliance Manager of the DEQ's NRO shall be used to verify compliance.

h. Propellant types and derived emission factors for all regulated air pollutants emitted from the rocket test facility.

i. Scheduled and unscheduled maintenance and operator training.

These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110, 9VAC5-220-40 and Condition 28 of 3/13/24 mNSR Permit)

Initial Notifications

10. Process Equipment Requirements – The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 4 of:

a. The actual date on which construction of new Test Bay #6 [EU-01(A)] commenced within 30 days after such date.

b. The anticipated start-up date of the new Test Bay #6 [EU-01(A)], postmarked not more than 60 days nor less than 30 days prior to such date.

c. The actual start-up date of the new Test Bay #6 [EU-01(A)] within 15 days after such date.

(9VAC5-80-110 and Condition 29 of 3/13/24 mNSR Permit)

Process Equipment Requirements – Facility-Wide Surface Coating and Adhesive Application Operations [EU-02]

Limitations

11. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the coatings used in the surface coating and adhesive application operations [EU-02] for aerospace vehicles and components shall comply with the standards for primer, topcoat and specialty coating application operations of 40 CFR 63.745, as summarized below:

    a. Uncontrolled primers shall comply with the content limits for organic HAPs and VOCs specified in 40 CFR 63.745(c)(1) and (2).

    b. Uncontrolled topcoats shall comply with the content limits for organic HAPs and VOCs specified in 40 CFR 63.745(c)(3) and (4).

    c. Uncontrolled specialty coatings shall comply with the content limits for organic HAPs and VOCs specified in 40 CFR 63.745(c)(5) and (6).

    d. As an alternative, the facility may comply with the Aerospace NESHAP by using a control system that meets the requirement of 40 CFR 63.745(d).

    e. As an alternative, per 40 CFR 63.745(e)(2), the facility may comply with the Aerospace NESHAP by using the averaging provisions described in 40 CFR 63.743(d).

    Surface coatings and adhesives which are used in non-Aerospace-related operations shall comply with the "super" paint adhesive and miscellaneous coating formulations.
    (9VAC5-80-110, and 40 CFR Part 63, Subpart GG, 63.745)

12. Process Equipment Requirements – Volatile organic compound (VOC) and VOC-hazardous air pollutant (HAP) emissions from the surface coating operations [EU-02] shall be controlled by the handling and transfer of primers, topcoats and specialty coatings to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.
    (9VAC5-80-110, 40 CFR 63.745(b) and Condition 2 of 3/13/24 mNSR Permit)

13. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the spray application equipment (sprayer) used for each paint booth shall be of the types listed in 40 CFR 63.745(f)(1). The sprayer shall be operated and maintained according to the manufacturer's specifications or more stringent approved procedures, with records kept for review by DEQ staff, upon request. A change to sprayer type with lower transfer efficiency or higher rated capacity may be subject to permitting.
    (9VAC5-80-110, and 40 CFR 63.745(f))

14. Process Equipment Requirements – Particulate (PM, PM10 and PM2.5) emissions from the three spray paint booths [EU-02] shall be controlled by dry particulate filter systems. The filter systems shall be operated in accordance with the manufacturer's instructions, shall be provided with adequate access for inspection, and shall be in operation whenever the spray booths are operating. If coatings which contain inorganic HAPs are applied in the paint booth, then the equipment shall be operated in accordance with 40 CFR 63.745(g).
(9VAC5-80-110, 40 CFR 63.745(g) and Condition 3 of 3/13/24 mNSR Permit)

15. Process Equipment Requirements – The filters used in the three spray paint booths [EU-02] shall have a manufacturer rated control efficiency for particulate matter (PM, PM10, and PM2.5) of no less than 95 percent, to be demonstrated by manufacturer information approved by DEQ showing the rated control efficiency, or alternative documentation, as approved by DEQ.
(9VAC5-80-110 and Condition 4 of 3/13/24 mNSR Permit)

16. Process Equipment Requirements – The spray gun cleaning activities [EU-02] shall comply with the applicable requirements of 40 CFR 63.744(c)(2) through (c)(4). Spray gun cleaning operations using cleaning solvent solutions that contain HAPs and VOCs below the de minimis levels specified in 40 CFR 63.741(f) are exempt from these requirements.
(9VAC5-80-110 and 40 CFR 63.744(c))

17. Process Equipment Requirements – The material throughput in the surface coating and adhesive application operations [EU-02] shall not exceed the values listed below, calculated monthly as the sum of each consecutive twelve-month period:

a. Surface coatings	4,500 pounds/year
b. Adhesives	9,000 pounds/year
c. Miscellaneous coatings	2,500 pounds/year

(9VAC5-80-110 and Condition 17 of 3/13/24 mNSR Permit)

18. Process Equipment Requirements – VOC emissions from the surface coating and adhesive application operations [EU-02] shall not exceed 8.0 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 21 of 3/13/24 mNSR Permit)

19. Process Equipment Requirements – Visible emissions from the exhaust of each of the three spray paint booths [EU-02] shall not exceed five (5) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9VAC5-80-110, 9VAC5-50-20.A.4 and Condition 26 of 3/13/24 mNSR Permit)

Monitoring and Recordkeeping

20. Process Equipment Requirements – The three spray paint booths [EU-02] shall be equipped with devices to continuously measure the differential pressure drop across the filters. The pressure drop for each filters shall be in the range of 0 - 1 inches of water column, as specified by the manufacturer. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the spray booth is operating.
(9VAC5-80-110 and Condition 6 of 3/13/24 mNSR Permit)

21. Process Equipment Requirements – To ensure good performance, the differential pressure monitor used to continuously measure the pressure drop across the filters for the three spray paint booths [EU-02] shall be observed by the permittee with a frequency of not less than once per day when the units are in operation. The permittee shall keep a log of the observations from each differential pressure monitor.
(9VAC5-80-110 and Condition 7 of 3/13/24 mNSR Permit)

22. Process Equipment Requirements – The permittee shall conduct weekly visual emission inspections on the exhaust of each of the three spray paint booths [EU-02] during daylight hours when the booths are operating. Visual inspections shall consist of a visual survey of the exhaust over a minimum two-minute period to identify if there are visible emissions other than condensed water vapor. If there are no visible emissions observed during this period, then the permittee shall record this fact and no further action is necessary for that particular weekly inspection. If any visible emissions other than condensed water vapor are observed, then the permittee shall:

    a. Conduct a visible emissions evaluation (VEE) using a certified opacity reader in accordance with Method 9 (40 CFR Part 60, Appendix A) for a minimum of six minutes, unless the visible emissions condition is corrected as expeditiously as possible. If the average opacity of the emissions from the exhaust of any of the spray paint booths [EU-02] exceeds twenty percent during any six-minute period, then a VEE shall be conducted immediately on the source for a consecutive sixty-minute period to determine compliance with the visible emissions standard prescribed in Condition 19. The VEE shall be conducted in accordance with Method 9 (40 CFR 60, Appendix A).

    b. Record the results of the weekly visible emission inspections, the substance of any corrective actions, and the result of all visible emissions evaluations conducted in accordance with Method 9 (40 CFR 60, Appendix A).

    (9VAC5-80-110 and Condition 11 of 3/13/24 mNSR Permit)

23. Process Equipment Requirements – The permittee shall comply with the applicable requirements for monitoring (40 CFR 63.751 (a) and (c)) and recordkeeping (40 CFR 63.752 (a), (c) and (d)) for any coatings used for operations subject to 40 CFR Part 63, Subpart GG.
(9VAC5-80-110, 40 CFR 63.751 and 40 CFR 63.752)

24. Process Equipment Requirements – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include the following:

    a. Monthly and annual consumption (in gallons and/or pounds) of the surface coatings, adhesives and miscellaneous coatings used in the surface coating and adhesive bonding operations [EU-02]. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

    b. Safety Data Sheet (SDS) or a certified product data sheet showing the VOC content (pounds per gallon less water) for each surface coating, adhesive and miscellaneous coating;

    c. Monthly and annual VOC emissions (in pounds and/or tons) resulting from surface coating and adhesive application. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

    d. The "super" paint, adhesive and miscellaneous coating formulations for the surface coating and adhesive application operations [EU-02]; and

    e. The information specified in 40 CFR 63.752(c) and (d) for any primer, topcoat and specialty coating application operations, where applicable;

    f. Manufacturer specifications verifying control efficiency for the dry particulate filters used in the spray paint booths [EU-02] to demonstrate compliance with Condition 15;

    g. Operation and control device monitoring records, as required in Conditions 20 and 21;

    h. Records of visual emissions inspections, as required by Condition 22; and

    i. Scheduled and unscheduled maintenance and operator training.

    These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-110, 40 CFR 63.752 and Condition 28 of 3/13/24 mNSR Permit)

Testing

25. Process Equipment Requirements – If compliance testing is conducted in addition to the monitoring specified in Condition 23 of this permit, the permittee shall use the test methods and procedures in 40 CFR 63.750 for coatings used for operations subject to 40 CFR 63, Subpart GG. Such tests include 40 CFR Part 60, Appendix A, Method 24 - *Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings* - in accordance with procedures approved by the DEQ. (9VAC5-80-110 and 40 CFR 63.750)

26. Process Equipment Requirements – If compliance testing for opacity is conducted in addition to the visible inspections specified in Condition 22 of this permit, the permittee shall perform visible emission evaluations in accordance with 40 CFR 60, Appendix A, Method 9 - *Visual determination of the opacity of emissions from stationary sources*. (9VAC5-80-110 and 40 CFR 60, Appendix A)

Reporting

27. Process Equipment Requirements – The permittee shall submit semi-annual reports, signed by a certified official, to the EPA and the Regional Air Compliance Manager of the DEQ's NRO, at the address listed in Condition 4, that identify the following information (and as stated in 40 CFR 63.753):

    a. The information specified in 40 CFR 63.753(c) on any primer, topcoat and specialty coating application operations where compliance is not being achieved for the standards given in 40 CFR 63.745 (c).

    b. Any instance where a non-compliant spray gun cleaning method was used;

    c. All times when a primer or topcoat application operation was not immediately shut down when the pressure drop across a dry particulate filter, or other particulate control device, or the recommended parameter(s) that indicate proper spray booth performance, as appropriate, was outside the limit(s) specified by the filter or booth manufacturer or in locally prepared operating procedures. Also, for their annual reports, the permittee shall list the number of times the pressure drop for each dry filter, or other applicable monitoring parameter, was outside the specified limit(s).

    d. If the coating and/or cleaning operations have been in compliance for the semi-annual period, the permittee shall submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with the applicable standards in 40 CFR 63, Subpart GG.

    For the purposes of this condition, the semi-annual reports shall be submitted by May 1 and November 1 of every year for the respective reporting periods of September 1 through

February 28 (29) and March 1 through August 31.
(9VAC5-80-110 and 40 CFR 63.753(b) and (c))

Initial Notifications

28. Process Equipment Requirements – The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 4 of:

    a. The actual date on which construction of new spray paint booth #3 [EU-02] commenced within 30 days after such date.

    b. The anticipated start-up date of the new spray paint booth #3 [EU-02], postmarked not more than 60 days nor less than 30 days prior to such date.

    c. The actual start-up date of the new spray paint booth #3 [EU-02] within 15 days after such date.

    (9VAC5-80-110 and Condition 29 of 3/13/24 mNSR Permit)

Process Equipment Requirements – Facility-Wide Hand-Wipe and Other Cleaning Operations [EU-03]

Limitations

29. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the solvent hand-wipe cleaning operations [EU-03] shall comply with the requirement of 40 CFR 63.744 (a) and (b), except exempt cleaning operations, as stated under 40 CFR 63.744(e) and "non-HAP material" defined in 40 CFR 63.742. Approved cleaning solvents listed in Table 1 of 40 CFR 63.744, as "aqueous" ($\geq$80% water) and "hydrocarbon" with maximum vapor pressure of 3.75 in. H_2O at 68 F, are excluded from housekeeping measures in 40 CFR 63.744(a). Other solvent use is limited to maximum composite vapor pressure of 24.1 in. H_2O at 68 F.
    (9VAC5-80-110 and 40 CFR 63.744 (a), (b) and (e))

30. Process Equipment Requirements – VOC and VOC-HAP emissions from any solvent hand-wipe cleaning operations [EU-03] shall be controlled by the following:

    a. Place cleaning solvent-laden cloth, paper, or any other absorbent applicators used for cleaning in bags or other closed containers upon completing their use. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement.

b. Store fresh and spent cleaning solvents used in aerospace cleaning operations in closed containers. Semi-aqueous solvent cleaners are exempt from this requirement.

c. Conduct the handling and transfer of cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent cleaning solvents in such a manner that minimizes spills.

(9VAC5-80-110, 40 CFR 63.744(a) and Condition 1 of 3/13/24 mNSR Permit)

31. Process Equipment Requirements – The solvent consumption for all hand-wipe cleaning operations [EU-03] shall not exceed 12.2 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 13 of 3/13/24 mNSR Permit)

32. Process Equipment Requirements – VOC emissions from all hand-wipe and other cleaning operations [EU-03] shall not exceed 11.3 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 21 of 3/13/24 mNSR Permit)

33. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the permittee shall conduct spray gun cleaning by use of one or more of the techniques, or their equivalent, specified in 40 CFR 63.744(c)(1) through (c)(4), except for solvents with HAP and VOC content below de minimis levels specified in 40 CFR 63.741(f). If using an enclosed system, the spray gun shall be cleaned in the system that is closed at all times except when inserting or removing it, as stated in 40 CFR 63.744(c)(1)(i) and repair leaks found during monthly inspections within 15 days, as stated in 40 CFR 63.744(c)(1)(ii).
(9VAC5-80-110, and 40 CFR 63.744(c))

Monitoring and Recordkeeping

34. Process Equipment Requirements – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to, the following:

a. Safety Data Sheet (SDS) or a certified product data sheet or other technical data for each cleaning solvent used;

b. For each cleaning solvent used in the exempt cleaning operations (i.e., defined under 40 CFR 63.744(e)) that does not conform to the vapor pressure or composition requirements of 40 CFR 63.744(b):

(1) The identity and amount (in gallons) of each cleaning solvent used each month at each operation;

(2) A list of the processes set forth in 40 CFR 63.744(e) to which the cleaning operation applies;

c. The monthly and annual consumption (in pounds and/or tons) of solvent for the hand-wipe cleaning operations [EU-03]. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period; and

d. The monthly and annual calculated VOC emissions (in pounds and/or tons) from all hand-wipe cleaning operations [EU-03]. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period.

These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110, 40 CFR 63.752, and Condition 28 of 3/13/24 mNSR Permit)

35. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the permittee shall comply with the monitoring requirements in 40 CFR 63.751(a), if any enclosed spray gun cleaners are used, and the applicable recordkeeping requirements in 40 CFR 63.752(b) for any hand-wipe cleaning operation that is not considered an exempt cleaning operation under 40 CFR 63.744(e) but is conducted in the manufacture or rework of aerospace vehicles or components, as defined by 40 CFR 63.742. (For any enclosed spray gun cleaners, the permittee shall keep records of leaks found during monthly inspections, and when repaired, as stated in 40 CFR 63.752(b)(5).
(9VAC5-80-110, 40 CFR 63.751(a), and 40 CFR 63.752(b))

Testing

36. Process Equipment Requirements – If compliance testing is conducted in addition to the monitoring specified in this permit for hand-wipe and other cleaning operations [EU-03], the permittee shall use test methods and procedures given in 40 CFR 63.750 (a) and (b). Such tests shall be conducted also in accordance with procedures approved by the DEQ.
(9VAC5-80-110, 40 CFR 63.750 (a), (b), and 40 CFR 60, Appendix A)

Reporting

37. Process Equipment Requirements – The permittee shall submit semi-annual reports, signed by a certified official, to the EPA and the Regional Air Compliance Manager of the DEQ's NRO, at the address listed in Condition 4, that identify the following information (and as stated in 40 CFR 63.753):

a. Any instance where a non-compliant cleaning solvent was used for a non-exempt hand-wipe cleaning operation;

b. A list of any new cleaning solvents used for non-exempt hand-wipe cleaning operations in the previous six months and, as appropriate, their composite vapor pressure or notification that they comply with the composition requirements specified in 40 CFR 63.744(b)(1);

c. Any instance where a noncompliant spray gun cleaning method is used;

d. Any instance where a leaking enclosed spray gun cleaner remains unrepaired and in use for more than 15 days; and

e. A statement that the cleaning operations have been in compliance for the semi-annual period, if the operations have been in compliance for the semi-annual period. The permittee shall also submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with all applicable requirements of 40 CFR Part 63, Subpart GG.

For the purposes of this condition, the semi-annual reports shall be submitted by May 1 and November 1 of every year for the respective reporting periods of September 1 through February 28 (29) and March 1 through August 31.
(9VAC5-80-110 and 40 CFR 63.753(b))

Process Equipment Requirements – Explosives Drying Operations [EU-04A/B/C]

Limitations

38. Process Equipment Requirements – The amount of explosives dried [EU-04A/B/C] shall not exceed 89 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 12 of 3/13/24 mNSR Permit)

39. Process Equipment Requirements – VOC emissions from the drying of explosives [EU-04A/B/C] shall not exceed 5.6 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 21 of 3/13/24 mNSR Permit)

Recordkeeping

40. Process Equipment Requirements – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to, the following:

    a. Monthly and annual quantity of explosives dried [EU-04A/B/C] (in pounds and/or tons). Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

    b. Safety Data Sheet (SDS) for each explosive dried, to include solvent content; and

    c. Monthly and annual calculated VOC emissions (in pounds and/or tons) from the explosives drying operation [EU-04A/B/C]. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period.

    d. Scheduled and unscheduled maintenance and operator training.

    These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-110 and Condition 28 of 3/13/24 mNSR Permit)

Testing

41. Process Equipment Requirements – If compliance testing is conducted in addition to the monitoring specified in this permit, the permittee shall use 40 CFR Part 60, Appendix A, Method 25 - *Determination of Total Gaseous Nonmethane Organic Emissions as Carbon* or 25A - *Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer* - in accordance with procedures approved by the DEQ.
    (9VAC5-80-110)

Initial Notifications

42. Process Equipment Requirements – The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 4 of:

    a. The actual date on which construction of new RDX dryer [EU-04C] commenced within 30 days after such date.

b. The anticipated start-up date of the new RDX dryer [EU-04C], postmarked not more than 60 days nor less than 30 days prior to such date.

c. The actual start-up date of the new RDX dryer [EU-04C] within 15 days after such date.

(9VAC5-80-110 and Condition 29 of 3/13/24 mNSR Permit)

Process Equipment Requirements – Solvent Cleaning Machines [EU-05A/B]

Limitations

43. Process Equipment Requirements – The solvent throughput in the solvent cleaning machines [EU-05A/B] shall not exceed 2.5 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 18 of 3/13/24 mNSR Permit)

44. Process Equipment Requirements – VOC emissions from the solvent cleaning machines [EU-05A/B] shall not exceed 2.5 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 21 of 3/13/24 mNSR Permit)

Recordkeeping

45. Process Equipment Requirements – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to, the following:

a. Monthly and annual quantity of solvents (in pounds and/or tons) processed in the solvent cleaning machines. Actual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

b. Safety Data Sheet (SDS) or a certified product data sheet or other technical data for each solvent processed that shows the VOC concentration of the material; and

c. Monthly and annual calculated VOC emissions (in pounds and/or tons) from the solvent cleaning machines. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period.

d. Scheduled and unscheduled maintenance and operator training.

These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110 and Condition 28 of 3/13/24 mNSR Permit)

Process Equipment Requirements – Sparging & Drying Operations [EU-06]

Limitations

46. Process Equipment Requirements – The solvent throughput in the sparging and drying operations [EU-06] shall not exceed 6.3 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 19 of 3/13/24 mNSR Permit)

47. Process Equipment Requirements – VOC emissions from the sparging and drying operations [EU-06] shall not exceed 3.3 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 21 of 3/13/24 mNSR Permit)

Recordkeeping

48. Process Equipment Requirements – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to the following:

    a. Monthly and annual quantities of solvent (in pounds and/or tons) processed in the sparging and drying operations. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

    b. Safety Data Sheet (SDS) for each solvent-stabilized energetic material ("lacquer") and stabilizing solvent processed; and

    c. Monthly and annual calculated VOC emissions (in pounds and/or tons) from the sparging and drying operations. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period.

    These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-110 and Condition 28 of 3/13/24 mNSR Permit)

Initial Notifications

49. Process Equipment Requirements – The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 4 of:

    a. The actual date on which construction of the new explosives sparging operation [EU-06] commenced within 30 days after such date.

    b. The anticipated start-up date of the new explosives sparging operation [EU-06], postmarked not more than 60 days nor less than 30 days prior to such date.

    c. The actual start-up date of the new explosives sparging operation [EU-06] within 15 days after such date.

    (9VAC5-80-110 and Condition 29 of 3/13/24 mNSR Permit)

Process Equipment Requirements – PM-Emitting Process Equipment [EU-07A/B through EU-11]

Limitations

50. Process Equipment Requirements – Particulate emissions (PM & PM-10) from operation of the following equipment (with the exception of the propellant cut-back machines [EU-09]) shall be controlled with an appropriate dust collection system at each source:

    a. Oxidizer grinders [EU-07A/B];

    b. Grit blast machines [EU-08A/B/C];

    c. Propellant machining operations [EU-09];

    d. Insulation machining operations [EU-10]; and

    e. Phenolic and rubber parts machining operations [EU-11].

    The dust collection system at each source shall have a control efficiency of 95% or greater. Emission controls and monitoring devices are only required on those new and modified units which are vented to the atmosphere. Particulate emissions from the propellant cut-back saw and cut-back machines associated with the propellant machining operations [EU-09] shall be controlled with wet suppression (aka "wet box" scrubbers).
    (9VAC5-80-110 and Condition 8 of 3/13/24 mNSR Permit)

51. Process Equipment Requirements – Emissions from the operation of the two oxidizer grinders [EU-07B] shall not exceed the limits specified below:

PM	0.40 lb/hr	1.8 tons/yr
PM10	0.40 lb/hr	1.8 tons/yr
PM2.5	0.40 lb/hr	1.8 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 50, 54, and 57.
(9VAC5-80-110 and Condition 24 of 3/13/24 mNSR Permit)

52. Process Equipment Requirements – Emissions from the operation of the four grit blasting machines [EU-08C] shall not exceed the limits specified below:

PM	0.16 lb/hr	0.7 tons/yr
PM10	0.16 lb/hr	0.7 tons/yr
PM2.5	0.16 lb/hr	0.7 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 50, 54, and 57.
(9VAC5-80-110 and Condition 25 of 3/13/24 mNSR Permit)

Monitoring and Recordkeeping

53. Process Equipment Requirements – Each emission unit associated with the processes/equipment identified in Condition 50, which is vented to the atmosphere through a particulate emissions control device, shall be monitored as the following:

a. Each fabric filter shall be equipped with a device to continuously measure the differential pressure across the filter.

b. Each “wet box” scrubber for the propellant cut-back machines [EU-09], with the exception of the propellant cut-back saw, shall be equipped with a device to continuously measure the vacuum pressure drawn through the “wet box”. (The cut-back saw is not equipped with a vacuum gauge.)

Each monitoring device shall be installed, maintained, calibrated, and operated in accordance with approved procedures that shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the emission unit is operating.
(9VAC5-80-110 and Condition 9 of 3/13/24 mNSR Permit)

54. Process Equipment Requirements – Each monitoring device, as required in Condition 53, shall be observed by the permittee with a frequency of not less than once per day when the emission unit is in operation. The permittee shall maintain records on the following:

    a. The differential pressure readings for each fabric filter. The readings shall be within the normal range for proper operation (maximum 6 inches of water, except 2 inches of water for the oxidizer grinders) [EU-07A/B]).

    b. The vacuum pressure readings for each "wet box" scrubber (except for the cutback saw). The readings shall indicate adequate vacuum (normally -9 to -85 millimeters of mercury).

    The permittee shall keep a log of the observations (including date, employee initials, procedure items completed and note any problems or repairs).
    (9VAC5-80-110 and Condition 10 of 3/13/24 mNSR Permit)

55. Process Equipment Requirements – The permittee shall follow the established standard operating procedure for the propellant cut-back saw [EU-09] to ensure proper operation of the process equipment and the associated "wet box" used for particulate control. The permittee shall maintain a copy of the standard operating procedures on site. A log shall be kept also on the observations and tasks performed (including date, employee initials, procedure items completed and note any problems or maintenance performed on the unit). The written procedures and log of observations shall be made available to DEQ personnel for review upon request.
    (9VAC5-80-110)

56. Process Equipment Requirements – If any monitoring device readings in Condition 53 are out of the parameter range established in Condition 54 or exceptions are noted from the standard operating procedures for the cut-back saw, as stated in Condition 55, the permittee shall perform diagnostics, maintenance and adjustments to the process and/or associated air pollution control equipment, as necessary to correct the out-of-range value. The permittee shall keep a record of the corrective actions taken to achieve proper operation. If the monitoring observations still indicate out of parameter range, the permittee shall notify the Regional Air Compliance Manager of the DEQ's NRO and take immediate action to shut down the process or curtail its operation. The process shall not be restarted until the process and the associated air pollution control equipment are able to operate in compliance with the permit and notification is provided to DEQ.
    (9VAC5-80-110)

57. Process Equipment Requirements – The permittee shall monitor and maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to the following:

    a. Monthly and annual emissions calculations for PM, PM10, and PM2.5 using calculation methods approved by the Northern Regional Office to verify compliance with the ton/yr emissions limitations in Conditions 51 and 52. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

    b. Log of monitoring device observations, as required in Conditions 54 and 55.

    c. Records of any corrective action taken if monitoring device readings are out of the parameter range, as stated in Condition 56.

    d. Scheduled and unscheduled maintenance and operator training.

    These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9VAC5-80-110 and Condition 28 of 3/13/24 mNSR Permit)

Initial Notifications

58. Process Equipment Requirements – The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 4 of:

    a. The actual date on which construction of the two new oxidizer grinders [EU-07B], four grit blasting machines [EU-08C], new equipment for insulation machining operations [EU-10], and new equipment for phenolic and rubber parts machining operations [EU-11] commenced within 30 days after such date.

    b. The anticipated start-up date of the two new oxidizer grinders [EU-07B], four grit blasting machines [EU-08C], new equipment for insulation machining operations [EU-10], and new equipment for phenolic and rubber parts machining operations [EU-11] commenced within 30 days after such date.

    c. The actual start-up date of the two new oxidizer grinders [EU-07B], four grit blasting machines [EU-08C], new equipment for insulation machining operations [EU-10], and

new equipment for phenolic and rubber parts machining operations [EU-11] within 15 days after such date.

(9VAC5-80-110 and Condition 29 of 3/13/24 mNSR Permit)

Process Equipment Requirements – Motor Case Lining Operations [EU-13A/B]

Limitations

59. Process Equipment Requirements – The solvent throughput in the motor case lining operations [EU-13A/B] shall not exceed 4.3 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 20 of 3/13/24 mNSR Permit)

60. Process Equipment Requirements – VOC emissions from the motor case lining operations [EU-13A/B] shall not exceed 4.3 tons per year, calculated monthly as the sum of each consecutive twelve-month period.
(9VAC5-80-110 and Condition 21 of 3/13/24 mNSR Permit)

61. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the motor case liner coatings operation [EU-13B] shall comply with the standards for specialty coating application operations of 40 CFR 63.745, as summarized below:

    a. Uncontrolled specialty coatings shall comply with the content limits for organic HAPs and VOCs specified in 40 CFR 63.745(c)(5) and (6), or

    b. The facility may comply with the Aerospace NESHAP by using a control system that meets the requirement of 40 CFR 63.745(d), or

    c. Per 40 CFR 63.745(e)(2), the facility may comply with the Aerospace NESHAP by using the averaging provisions described in 40 CFR 63.743(d).

    (9VAC5-80-110, and 40 CFR 63.745)

62. Process Equipment Requirements – Volatile organic compound (VOC) and VOC-hazardous air pollutant (HAP) emissions from the motor case lining operation [EU-13A/B] shall be controlled by the handling and transfer of primers, topcoats and specialty coatings to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.
(9VAC5-80-110, 40 CFR 63.745(b) and Condition 2 of 3/13/24 mNSR Permit)

63. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the spray application equipment (sprayer) used for motor case lining operation [EU-13B] shall be of the type exempted in 40 CFR 63.745(f)(3) or coatings shall be applied by brush or non-sprayer type equipment. The exempt sprayer or other applicators shall be operated and maintained according to the manufacturer's specifications or more stringent approved procedures, with records kept for review by DEQ staff, upon request. A change in sprayer type may be subject to permitting.
(9VAC5-80-110 and 40 CFR 63.745(f))

64. Process Equipment Requirements – Except for exemptions given in 40 CFR 63.741(f) through (j), the spray gun cleaning activities [EU-13B] shall comply with the applicable requirements of 40 CFR 63.744(c). Spray gun cleaning operations using cleaning solvent solutions that contain HAPs and VOCs below the de minimis levels specified in 40 CFR 63.741(f) are exempt from these requirements.
(9VAC5-80-110 and 40 CFR 63.744(c))

Monitoring and Recordkeeping

65. Process Equipment Requirements – The permittee shall comply with the applicable requirements for monitoring (40 CFR 63.751(a)) and recordkeeping (40 CFR 63.752(a), (c) and (d)) for any coatings or cleaning operations subject to 40 CFR Part 63, Subpart GG.
(9VAC5-80-110 and 40 CFR 63.751 and 40 CFR 63.752)

66. Process Equipment Requirements – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. These records shall include, but are not limited to, the following:

    a. Monthly and annual quantity of solvent used in the motor case lining operation [EU-13A/B] (in pounds and/or tons). Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

    b. Annual throughput of coatings used in the motor case lining operation [EU-13B], in order to determine whether requirements of 40 CFR 63.745 do not apply based on low-volume coatings use, as specified in 40 CFR 63.741(g). Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period;

    c. Safety Data Sheet (SDS) for each liner material and thinning solvent to include VOC and HAP content; and

    d. Monthly and annual calculated VOC emissions (in pounds and/or tons) from the motor case lining operation [EU-13A/B]. Annual totals shall be calculated monthly as the sum of each consecutive twelve-month period.

These records shall be updated within thirty days after the end of the month to which the records pertain. These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9VAC5-80-110, 40 CFR 63.741(g) and Condition 28 of 3/13/24 mNSR Permit)

Testing

67. Process Equipment Requirements – If compliance testing is conducted, the permittee shall use the test methods and procedures in 40 CFR 63.750 for coatings used for operations subject to 40 CFR 63, Subpart GG. Such tests include 40 CFR Part 60, Appendix A, Method 24 - *Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings* - in accordance with procedures approved by the DEQ.
(9VAC5-80-110 and 40 CFR 63.750)

Reporting

68. Process Equipment Requirements – The permittee shall submit semi-annual reports for the applicable motor case lining operation [EU-13B], signed by a certified official, to the EPA and the Regional Air Compliance Manager of the DEQ's NRO, at the address listed in Condition 4, that identify the following information (and as stated in 40 CFR 63.753):

    a. The information specified in 40 CFR 63.753(a) and (c) on any primer, topcoat and specialty coating application operations where compliance is not being achieved for the standards given in 40 CFR 63.745 (c).

    b. The information on averaged VOC and HAP content level calculations, as specified in 40 CFR 63.750(d) and (f), to show compliance when alternative averaging provisions are used, as stated in 40 CFR 63.743(d).

    c. In case of added emission control equipment, the exceedance information specified in 40 CFR 63.753(c), if applicable.

    d. Any instance where a noncompliant cleaning solvent or noncompliant spray gun cleaning method is used as stated in 40 CFR 63.753(b), for the motor case lining operation [EU-13B].

    e. If the coating and/or cleaning operations have been in compliance for the semi-annual period, the permittee shall submit a statement of compliance signed by a responsible company official certifying that the facility is in compliance with the applicable standards in 40 CFR 63, Subpart GG.

For the purposes of this condition, the semi-annual reports shall be submitted by May 1 and November 1 of every year for the respective reporting periods of September 1 through February 28 (29) and March 1 through August 31.
(9VAC5-80-110 and 40 CFR 63.753(a), (b), and (c))

Initial Notifications

69. Process Equipment Requirements – The permittee shall furnish written notification to the Regional Air Compliance Manager of the DEQ's NRO at the address listed in Condition 4 of:

    a. The actual date on which construction of the new motor case lining operation [EU-13B] commenced within 30 days after such date.

    b. The anticipated start-up date of the new motor case lining operation [EU-13B], postmarked not more than 60 days nor less than 30 days prior to such date.

    c. The actual start-up date of the new motor case lining operation [EU-13B] within 15 days after such date.

    (9VAC5-80-110 and Condition 29 of 3/13/24 mNSR Permit)

Process Equipment Requirements – Emergency Engines [EU-14A through EU-14K]

MACT Subpart ZZZZ Requirements by Reference

70. Process Equipment Requirements – Except where this permit is more restrictive than the applicable requirement, the emergency diesel engine generators and fire pump [EU14A through EU-14D] subject to MACT shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ that include the following as summarized in table below:

Unit	Emission and Operating Limitations	Monitoring & Compliance	Testing	Notification, Reporting, Recordkeeping
EU-14A EU-14B EU-14C EU-14D	63.6602 (Table 2c): Change oil/filter, inspect hoses/belts every 500 hours or annually; inspect air cleaner every 1,000 hours or annually; Minimize engine idling and each startup to not exceed 30 minutes. 63.6604(b): The units must use diesel fuel that meets the requirements of 40 CFR 1090.305 of 15 ppm sulfur and minimum cetane index of 40 or maximum aromatic content of 35 volume percent. (Ultra-low sulfur diesel)	63.6605, 63.6625(e) & (f): Comply with limitations; operate and maintain as per manufacturer emission-related specifications, or develop own plan, that will minimize emissions; and install non-resettable hour meter. 63.6640(f): Emergency use only, except limited non-emergency use not to exceed 100 hrs/yr.	Not required for certified engines (except DEQ may require opacity testing)	63.6655 (e) &(f): Keep maintenance records, hour-meter records of emergency and any non-emergency operation. 63.6640(b) and 63.6650(d): Compliance report on any deviations, if emission or operating limitations are not met (Tables 2c and 6), send electronically to CEDRI at EPA CDX.

(9VAC5-80-110 and 40 CFR 63 Subpart ZZZZ)

NSPS Subpart IIII Requirements by Reference

71. Process Equipment Requirements – Except where this permit is more restrictive than the applicable requirement, the emergency diesel engine generators [EU-14E through EU-14G, EU-14K] subject to NSPS shall be operated in compliance with the requirements of 40 CFR 60, Subpart IIII that include the following as summarized in table below:

Unit	Emission Standard, Fuel Requirements	Monitoring & Compliance	Testing	Notification, Reporting, Recordkeeping
EU-14E, EU-14F, EU-14G, EU-14K	60.4205(b): Comply with emission standards in 60.4202(a)(2) (from 40 CFR 1039 Appendix I) of 6.4 g/kW-hr for NMHC+NOx, 3.5 g/kW-hr for CO, and 0.2 g/kW-hr for PM, and 40 CFR 1039.105 opacity limits. 60.4206: Operate and maintain to meet emission standards over the life of the engines. 60.4207(b): The units must use diesel fuel that meets the requirements of 40 CFR 1090.305 of 15 ppm sulfur and minimum cetane index of 40 or maximum aromatic content of 35 volume percent. (Ultra-low sulfur diesel)	60.4211(a), (c): Purchase certified engine, install and operate as per manufacturer emission-related specifications. 60.4209(a): install non-resettable hour meter. 60.4211(f): Emergency use only, except limited non-emergency use not to exceed 100 hrs/yr.	Not required for certified engines (except DEQ may require opacity testing)	60.4214(b): If emergency engine does not meet standard for non-emergency engine, the permittee must keep records of emergency and non-emergency operations. 60.4214(d): For engine > 100 hp, submit annual report if non-emergency use for another entity, as stated in 60.4211(f)(3)(i), send electronically to CEDRI at EPA CDX.

(9VAC5-80-110 and 40 CFR 60 Subpart IIII)

NSPS Subpart JJJJ Requirements by Reference

72. Process Equipment Requirements – Except where this permit is more restrictive than the applicable requirement, the emergency propane-fired engine generators [EU-14H through EU-14J] subject to NSPS shall be operated in compliance with the requirements of 40 CFR 60, Subpart JJJJ that include the following as summarized in table below:

Unit	Emission Standards	Monitoring & Compliance	Testing	Notification, Reporting, Recordkeeping
EU-14H EU-14I EU-14J	60.4233(d) - (Engine of 25-100 hp) – [EU-14H]): Comply with emission standards in Table 1 of 10 g/hp-hr for NMHC+NO_x, and 387 g/hp-hr for CO limits; 60.4233 (a) - (Engines $\leq$ 25 hp) - [EU-14I and EU-14J]: Comply with emission standards in 60.4231(a), (from 40 CFR 1054.105 Table 1) of 8 g/kW-hr for NMHC+NOx, and 610 g/kW-hr for CO limits. 60.4234: Operate and maintain to meet emission standards over the life of the engines.	60.4237(c): Install non-resettable hour meter. 60.4243(a)/(b), (d). Purchase certified engine, install and operate as per manufacturer emission-related specifications. Emergency use only, except limited non-emergency use not to exceed 100 hrs/yr.	Not required for certified engines	60.4245(a), (b): Keep records of notifications sent, maintenance conducted and on manufacturer certified emissions. If emergency engine > 25 hp does not meet standard for non-emergency engine, the permittee must keep records on hours of emergency and non-emergency operation.

(9VAC5-80-110 and 40 CFR 60 Subpart JJJJ)

73. Diesel Engine Additional Requirements – Monitoring and Recordkeeping - Emergency diesel engines (EU-A through EU-G, and EU-K) - Observations for the presence of visible emissions from each emergency diesel engine exhaust stack (FP1, GEN1 through GEN6 and GEN10) shall be made at the following frequencies, as applicable:

Emissions Unit Operating Hours per Year (hr/yr)	**Frequency of Observations for Presence of Visible Emissions**
Less than 250 hr/yr	Once per year
Greater than or equal to 250 hr/yr	Once every 250 hours

"Year" as used above means each rolling 12-month period, calculated monthly as the sum of each consecutive 12-month period. Each observation shall be at least two minutes

duration. If visible emissions are detected during the observation or at any time, the permittee shall:

a. Take timely corrective action such that the emissions unit resumes operation with no visible emissions, or,

b. Conduct a visible emission evaluation (VEE) on the emissions unit exhaust stack with visible emissions in accordance with EPA Reference Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six minutes, to assure visible emissions from the emission unit is 20 percent opacity or less. If any observations exceed 20 percent opacity, the observation period shall continue until a total of 60 minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the emissions unit resumes operation within the 20 percent opacity limit.

The permittee shall maintain written or electronic logs of operating hours and observations for each (diesel) emergency engine to demonstrate compliance. The logs shall include the hours of operation for each engine, the date and time of each observation, whether visible emissions were detected during the observation, the results of all VEEs, any corrective action taken, and the name of the observer. If any emissions unit has not been operated for any period, it shall be noted in the log.
(9VAC5-80-110 E & K)

Facility Wide Conditions

74. Facility Wide Conditions - Limitations - Except for exclusion of rocket test facility [EU-01] and more stringent limit in Condition 19 for spray paint booths [EU-02], visible emissions from each process shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9VAC5-80-110, 9VAC5-220-30 A, and 9VAC5-50-80)

75. Facility Wide Conditions - Limitations - VOC Work Practice Standards – At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded to sewers which are not connected to a treatment plant, stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.
(9VAC5-80-110, 9VAC5-50-20 F and Condition 5 of 3/13/24 mNSR Permit)

76. Facility Wide Conditions - Testing - The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the DEQ, test ports shall be provided at the appropriate locations.
(9VAC5-80-110 and 9VAC5-50-30 F)

77. Facility Wide Conditions - Testing - If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.
(9VAC5-80-110 and 9VAC5-50-30 G)

Insignificant Emission Units

78. Insignificant Emission Units – The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
IS-01	Nitramines, explosives and oxidizer grinding operations (vented internally)	5-80-720 B	PM_{10}	500 lbs/hr of explosives and oxidizers
IS-02	Inert ingredient preparation and screening operations (vented internally)	5-80-720 B	PM_{10}	500 lbs/hr of propellant ingredients
IS-03	Propellant mixing, casting and curing operations	5-80-720 B	PM_{10} and VOCs	4,500 lbs/batch of propellant
IS-04	Propellant machining operations (vented internally)	5-80-720 B	PM_{10}	250 lbs/hr of propellant
IS-06	Liner mixing and spraying operations	5-80-720 B	VOCs and HAPs	75 lbs/hr of liner materials

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
IS-07	Motor case X-ray units (Linatron machines and CT Scanner)	5-80-720 B	VOCs and HAPs	1 lb/hr of x-ray chemicals
IS-A-01	Gasoline AST	5-80-720 B	VOCs	1,000 gallons
IS-A-02	Diesel fuel AST	5-80-720 B	VOCs	1,000 gallons
IS-A-03	Fuel Oil Storage Tank	5-80-720 B	VOCs	300 gallons
IS-A-04	Ethylene glycol storage tanks	5-80-720 B	VOCs	Various tank capacities (150 to 1,000 gallons)
IS-08	Air Facility (ancillary equipment only – propane, and TEB tanks)	5-80-720 B	VOCs	Various tank capacities (8 pounds to 1,000 gallons)
IS-09	R&D-related propellant combustion testing equipment	5-80-720 B	PM_{10}, VOCs and HAPs	20 lbs/hr of R&D propellants
IS-10	Adiprene mixing operations	5-80-720 B	VOCs and HAPs	1 gal/hr of adhesive mixture
IS-11	Composites operations	5-80-720 B	VOCs and HAPs	1 gal/hr of composite materials
IS-12	Foam blowing operations	5-80-720 B	VOCs and HAPs	1 gal/hr of polyurethane foam materials
IS-13	Grit blasting operations (vented internally)	5-80-720B	PM_{10}	50 lbs/hr of blasting media
IS-14	Propellant extruding operations	5-80-720 B	VOCs	50 lbs/hr of propellant

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
IS-15	Phenolic and rubber parts molding operations	5-80-720 B	PM_{10} and VOCs	100 lbs/hr of phenolic resins and rubber molding compounds
IS-16	Insulation bake-out oven (Lindberg unit or equivalent)	5-80-720 B	VOCs and HAPs	100 lbs/hr of insulation materials
IS-17	Miscellaneous curing ovens and autoclaves	5-80-720 B	VOCs and HAPs	100 lbs/hr per unit of metal and plastic components per unit
IS-18	Propellant R&D activities	5-80-720 B	VOCs and HAPs	1 gal/hr of solvent
IS-19	Magnaflux machines (or equivalent)	5-80-720 B	VOCs	1.0 gal/hr of dye penetrant per unit
IS-20	Miscellaneous vacuum ovens and autoclaves	5-80-720 B	VOCs and HAPs	100 lbs/hr of process materials per oven
IS-22	Motor case soak-out operations	5-80-720 B	VOCs and HAPs	10 gal/hr of solvent
IS-23	Metalworking operations (vented internally)	5-80-720B	PM_{10}	500 lbs/hr of metal stock
IS-24	Scramjet rocket engine testing (using ethylene gas)	5-80-720 B	CO	35 lbs of ethylene gas per test
IS-25	Propane fired inert verification oven	5-80-720 B	NO_2	0.5 MMBtu/hr
IS-26	Liquified propane gas storage tank	5-80-720 B	VOCs	1,000 gallons

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
IS-27	Ramjet rocket engine testing (using JP-10)	5-80-720 B	PM_{10}, VOCs, SO_2, NO_2, CO	60 gal/hr and 1,000 gal/yr of rocket fuel
IS-28	Parts washer units for general maintenance	5-80-720 B	VOCs	one 20-gallon and one 35-gallon
IS-29	C4 Rocket motor testing w/asbestos impregnated rubber insulation	5-80-720 B	PM_{10} and HAP's	0.5 lb/unit of insulation, 12 rocket motors per year
IS-30	Ramjet rocket engine testing (using JP-7)	5-80-720 B	PM_{10}, VOCs, SO_2, NO_2, CO	60 gal/hr and 1,000 gal/yr of rocket fuel
IS-31	Ramjet and scramjet rocket engine testing (Using hydrogen gas)	5-80-720 B	CO	200 lbs/hr and 2,000 lbs/yr of hydrogen gas
IS-32	Long-Range rocket motors with turbojet engines (using JP-4)	5-80-720 B	PM_{10}, VOC's, SO_2, NO_2, CO	60 gal/hr and 1,000 gal/yr of rocket fuel
IS-33	Rocket motor tests (using HAN)	5-80-720 B	NO_2	5 lbs/hr and 300 lbs/yr of HAN
IS-34	Ingredient preparation booth for R&D propellant formulations	5-80-720 B	PM_{10}, Lead, HAPs	10 lb/hr and 1,000 lb/yr of ingredients
IS-35	Nitramines, explosives and oxidizer grinding operations (vented to the atmosphere)	5-80-720 B	PM_{10}	20 lb/hr of energetic materials

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9VAC5-80-720B)	Rated Capacity (9VAC5-80-720C)
IS-36	Ramjet rocket engine tests (using methane and hydrogen gas mixtures)	5-80-720 B	CO, NO_2	5 gal/hr and 40 gal/yr of methane and hydrogen gas
IS-37	Liquified propane storage tank (pressurized)	5-80-720 B	VOCs	30,000 gallons
IS-38	Ramjet/Scramjet rocket engine tests (using RJ-10, DMCO, and JP-10 Blend)	5-80-720 B	CO, NO_2, PM_{10}, SO_2, VOCs	50 gal/hr and 1,500 gal/yr of rocket fuel
IS-39	Electric Drum Evaporator	5-80-720 B	PM_{10}	1.67 gal/hr of waste photographic solutions
IS-A-05	Diesel fuel storage tank	5-80-720 B	VOCs	5 gallons
IS-A-06 (EU-14B)	Diesel fuel storage tank	5-80-720 B	VOCs	500 gallons
IS-A-07 (EU-14C)	Diesel fuel storage tank	5-80-720 B	VOCs	100 gallons
IS-A-08 (EU-14G)	Diesel fuel storage tank	5-80-720 B	VOCs	100 gallons
IS-A-09 (EU-14D)	Diesel fuel storage tank	5-80-720 B	VOCs	500 gallons
IS-A-10 (EU-14E)	Diesel fuel storage tank	5-80-720 B	VOCs	100 gallons
IS-A-11	Diesel fuel storage tank	5-80-720 B	VOCs	100 gallons
IS-A-12 (EU-14F)	Diesel fuel storage tank	5-80-720 B	VOCs	1,000 gallons
IS-A-13 (EU-14K)	Diesel fuel storage tank	5-80-720 B	VOCs	255 gallons

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110. (9VAC5-80-110)

Permit Shield & Inapplicable Requirements

79. Permit Shield & Inapplicable Requirements – Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
9VAC5-80-360 through 9VAC5-80-705	Acid Rain Provisions	Not applicable facility-wide
40 CFR Part 60, Subpart Kb	NSPS for VOC Liquid Storage Tanks (constructed/modified between 7/23/84 and 10/4/23)	Not applicable to any tanks currently on-site
40 CFR Part 60, Subpart Kc	NSPS for VOC Liquid Storage Tanks (constructed/modified after 10/4/23)	Not applicable to any tanks currently on-site
40 CFR Part 61, Subpart D	NESHAP for Beryllium Rocket Motor Firing	Not applicable facility-wide
40 CFR Part 63, Subpart PPPPP	NESHAP for Engine Test Cells/Stands	Not applicable facility-wide
40 CFR Part 63, Subpart T	NESHAP for Halogenated Solvent Cleaning	Does not apply to facility hand-wipe cleaning [EU-03] or solvent cleaning machines [EU-05] since use of halogenated solvent in the machines was discontinued in 2011.
40 CFR Part 63, 63.6(e)	Startup, Shutdown and Malfunction (SSM) Plan	Not required for spray paint booths [EU-02] as long as dry particulate filter systems are operated in accordance with manufacturer's instructions.

Citation	Title of Citation	Description of Applicability
40 CFR Part 63, Subpart MMMM	NESHAP for Surface Coating of Miscellaneous Metal Parts and Products	According to 40 CFR 63.3881(c), Subpart MMMM is not applicable to metal surface coatings that meet applicability for aerospace manufacturing and rework
40 CFR Part 63, Subpart HHHHHH,	NESHAP: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources	Not applicable since facility is a Major HAP source (not an area HAP source)
40 CFR Part 63, Subpart XXXXXX	NESHAP Area Source Standards for Nine Metal Fabrication and Finishing Source Categories	Not applicable since facility is a Major HAP source (not an area HAP source)
9VAC5-50-80	Standard for Visible Emissions	Does not apply to emission unit EU-01(A) based on Variance given in 9VAC5-220-30; does not apply to EU-03 through EU-06 and EU-13 because they do not generate visible emissions.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act or (ii) the DEQ pursuant to §10.1-1307.3 or §10.1-1315 of the Virginia Air Pollution Control Law.
(9VAC5-80-110 and 9VAC5-80-140)

General Conditions

80. General Conditions – Federal Enforceability – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9VAC5-80-110)

81. General Conditions – Permit Expiration

    a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete

application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

c. If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the DEQ takes final action on the application under 9VAC5-80-150.

d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.

e. If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the DEQ fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

f. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the DEQ any additional information identified as being needed to process the application.

(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

82. General Conditions – Recordkeeping and Reporting – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

a. The date, place as defined in the permit, and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of such analyses; and

f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-110)

83. General Conditions – Recordkeeping and Reporting – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9VAC5-80-110)

84. General Conditions – Recordkeeping and Reporting – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1 and September 1 of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31; and

b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:

i. Exceedances of emissions limitations or operational restrictions;

ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semiannual reporting period."

(9VAC5-80-110)

85. General Conditions – Annual Compliance Certification – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a

schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 of each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31;

b. The identification of each term or condition of the permit that is the basis of the certification;

c. The compliance status;

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;

e. Consistent with subsection 9VAC5-80-110, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;

f. Such other facts as the permit may require to determine the compliance status of the source; and

g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov
(9VAC5-80-110)

86. General Conditions – Permit Deviation Reporting – The permittee shall notify the Regional Air Compliance Manager of DEQ's NRO within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semiannual compliance monitoring report pursuant to Condition 84 of this permit.
(9VAC5-80-110 F. 2)

87. General Conditions – Failure/Malfunction Reporting – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Regional Air Compliance Manager of DEQ's NRO of such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Regional Air Compliance Manager of DEQ's NRO.
(9VAC5-80-110 and 9VAC5-20-180)

88. General Conditions – Failure/Malfunction Reporting – The emission units that have continuous monitors subject to 9VAC5-40-50 C and 9VAC5-50-50 C are not subject to the 14-day written notification.
(9VAC5-20-180 and 9VAC5-50-50)

89. General Conditions – Failure/Malfunction Reporting – Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the DEQ semiannually. All semiannual reports shall be postmarked by the 30th day following the end of each calendar semiannual period (June 30th and January 30th). All reports shall include the following information:

    a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

    b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

    c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

    d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

    All malfunctions of emission units not subject to 9VAC5-40-50 C and 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction.
    (9VAC5-80-110, 9VAC5-20-180 C, and 9VAC5-50-50)

90. General Conditions – Severability – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9VAC5-80-110)

91. General Conditions – Duty to Comply – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9VAC5-80-110)

92. General Conditions – Need to Halt or Reduce Activity not a Defense – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9VAC5-80-110)

93. General Conditions – Permit Modification – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9VAC80-110, 9VAC5-80-190, and 9VAC5-80-260)

94. General Conditions – Property Rights – The permit does not convey any property rights of any sort, or any exclusive privilege.
(9VAC5-80-110)

95. General Conditions – Duty to Submit Information – The permittee shall furnish to the DEQ, within a reasonable time, any information that the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality.
(9VAC5-80-110)

96. General Conditions – Duty to Submit Information – Any document (including reports) required in a permit condition to be submitted to the DEQ shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G.
(9VAC5-80-110)

97. General Conditions – Duty to Pay Permit Fees – The owner of any source for which a permit was issued under 9VAC5-80-50 through 9VAC5-80-300 shall pay annual emissions fees, as applicable, consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 and annual maintenance fees, as applicable, consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350.
(9VAC5-80-110, 9VAC5-80-310 et seq., and 9VAC5-80-2310 et seq.)

98. General Conditions – Fugitive Dust Emission Standards – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

    b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

    c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

    d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

    e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

    (9VAC5-80-110 and 9VAC5-50-90)

99. General Conditions – Startup, Shutdown, and Malfunction – At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the DEQ, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9VAC5-80-110 and [9VAC5-50-20 E or 9VAC5-40-20 E])

100. General Conditions – Alternative Operating Scenarios – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1.
(9VAC5-80-110)

101. General Conditions – Inspection and Entry Requirements – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

    a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

    b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

    d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

    (9VAC5-80-110)

102. General Conditions – Reopening for Cause – The permit shall be reopened by the DEQ if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:

    a. The permit shall be reopened if the DEQ or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

    b. The permit shall be reopened if the administrator or the DEQ determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the DEQ if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D.

(9VAC5-80-110)

103. General Conditions – Permit Availability – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC5-80-110 and 9VAC5-80-150)

104. General Conditions – Transfer of Permits

a. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.

b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the DEQ of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.

c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the DEQ of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.

(9VAC5-80-110 and 9VAC5-80-160)

105. General Conditions – Permit Revocation or Termination for Cause – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The DEQ may suspend, under such conditions and for such period of time as the DEQ may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9VAC5-80-110, 9VAC5-80-190 C, and 9VAC5-80-260)

106. General Conditions – Duty to Supplement or Correct Application – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional

information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. (9VAC5-80-110 and 9VAC5-80-80 E)

107. General Conditions – Stratospheric Ozone Protection – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (9VAC5-80-110 and 40 CFR Part 82)

108. General Conditions – Asbestos Requirements – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150). (9VAC5-60-70 and 9VAC5-80-110)

109. General Conditions – Accidental Release Prevention – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (9VAC5-80-110 and 40 CFR Part 68)

110. General Conditions – Changes to Permits for Emissions Trading – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9VAC5-80-110)

111. General Conditions – Emissions Trading – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300.

    (9VAC5-80-110)