State of Utah

SPENCER J. COX
Governor

DEIDRE HENDERSON
Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-AN104020059-22

October 28, 2022

Jason Wells
ATK Launch Systems, LLC
M/S F/1/EV
P.O. Box 98
Magna, UT 84044-0098
Jason.wells@ngc.com

Dear Mr. Wells:

Re: Approval Order:
Modification to Approval Order DAQE-AN104020057-22 to Add Equipment and Increase VOC Limitations
Project Number: N104020059

The attached Approval Order (AO) is issued pursuant to the Notice of Intent (NOI) received on September 21, 2021. ATK Launch Systems, LLC must comply with the requirements of this AO, all applicable state requirements (R307), and Federal Standards.

The project engineer for this action is **Ana Williams**, who can be contacted at (385) 306-6505 or anawilliams@utah.gov. Future correspondence on this AO should include the engineer's name as well as the DAQE number shown on the upper right-hand corner of this letter. No public comments were received on this action.

Sincerely,

Bryce C. Bird
Director

BCB:AW:jg

cc: Salt Lake County Health Department

STATE OF UTAH
Department of Environmental Quality
Division of Air Quality

APPROVAL ORDER
DAQE-AN104020059-22
Modification to Approval Order DAQE-AN104020057-22 to Add Equipment and Increase VOC Limitations

Prepared By
Ana Williams, Engineer
(385) 306-6505
anawilliams@utah.gov

Issued to
ATK Launch Systems, LLC - Bacchus Works - Plant 1 NIROP Bacchus West

Issued On
October 28, 2022

Issued By

Bryce C. Bird
Director
Division of Air Quality

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GENERAL INFORMATION

CONTACT/LOCATION INFORMATION

Owner Name
ATK Launch Systems, LLC

Source Name
ATK Launch Systems, LLC - Bacchus Works - Plant 1 NIROP Bacchus West

Mailing Address
M/S F/1/EV
P.O. Box 98
Magna, UT 84044-0098

Physical Address
5000 South 8400 West
West Valley City, UT 84044

Source Contact
Name Jason Wells
Phone (435) 863-6895
Email Jason.wells@ngc.com

UTM Coordinates
409,700 m Easting
4,502,100 m Northing
Datum NAD27
UTM Zone 12

SIC code 3761 (Guided Missiles & Space Vehicles)

SOURCE INFORMATION

General Description
ATK Launch Systems, LLC (ATK) operates the Bacchus site, an existing rocket propulsion plant in West Valley City, Salt Lake County. The ATK Bacchus site manufactures solid fuel rocket motors for NASA and the Department of Defense. The manufacturing operations at this plant includes rocket case preparation buildings, cyclotetramethylene-tetranitramine (HMX) grinding and drying processes for making solid rocket fuel, propellant sampling and machining, and an open burning ground for the routine burning of explosive and flammable wastes.

NSR Classification
Minor Modification at Minor Source

Source Classification
Located in Northern Wasatch Front O3 NAA, Salt Lake City UT $PM_{2.5}$ NAA, Salt Lake County SO_2 NAA
Salt Lake County
Airs Source Size: SM

Applicable Federal Standards
NSPS (Part 60), A: General Provisions
NSPS (Part 60), Dc: Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal

Combustion Engines
NSPS (Part 60), JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
MACT (Part 63), A: General Provisions
MACT (Part 63), ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
MACT (Part 63), CCCCCC: National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities
Title V (Part 70) Area Source

Project Description
ATK has requested a modification to AO DAQE-AN104020057-22 for the following Building 2471 (Case Preparation building) changes: add two new surface coating spray booths equipped with fabric filters; install a new pulse jet baghouse to control dust generated from surface preparation activities; add one new Spray Lance Robot (SLR) booth equipped with an in-line filtration ventilation duct; and increase the existing VOC emissions limitation in Condition II.B.8.a from 6.0 TPY to 16.0 TPY. ATK has requested these modifications to accommodate an increase in rocket motor case preparation. As part of this modification, ATK has requested to add three existing SLR booths to the approved equipment list.

SUMMARY OF EMISSIONS

The emissions listed below are an estimate of the total potential emissions from the source. Some rounding of emissions is possible.

Criteria Pollutant	Change (TPY)	Total (TPY)
CO_2 Equivalent	0	43094.00
Carbon Monoxide	0	33.80
Nitrogen Oxides	0	52.99
Particulate Matter - PM_{10}	0.24	51.67
Particulate Matter - $PM_{2.5}$	0.20	51.60
Sulfur Dioxide	0	0.68
Volatile Organic Compounds	10	43.53

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
2,4-Toluene Diisocyanate (CAS #584849)	1960	1960
Hydrochloric Acid (Hydrogen Chloride) (CAS #7647010)	0	19800
Total HAPs (CAS #THAPS)	-1960	28040
	Change (TPY)	**Total (TPY)**
Total HAPs	0	24.90

SECTION I: GENERAL PROVISIONS

I.1	All definitions, terms, abbreviations, and references used in this AO conform to those used in the UAC R307 and 40 CFR. Unless noted otherwise, references cited in these AO conditions refer to those rules. [R307-101]
I.2	The limits set forth in this AO shall not be exceeded without prior approval. [R307-401]
I.3	Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved. [R307-401-1]
I.4	All records referenced in this AO or in other applicable rules, which are required to be kept by the owner/operator, shall be made available to the Director or Director's representative upon request, and the records shall include the two-year period prior to the date of the request. Unless otherwise specified in this AO or in other applicable state and federal rules, records shall be kept for a minimum of two (2) years. [R307-401-8]
I.5	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this AO, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded. [R307-401-4]
I.6	The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]
I.7	The owner/operator shall comply with UAC R307-150 Series. Emission Inventories. [R307-150]
I.8	The owner/operator shall submit documentation of the status of construction or modification of all equipment marked **NEW** in Condition II.A.6 to the Director within 18 months from the date of this AO. This AO may become invalid if construction is not commenced within 18 months from the date of this AO or if construction is discontinued for 18 months or more. To ensure proper credit when notifying the Director, send the documentation to the Director, attn.: NSR Section. [R307-401-18]

SECTION II: PERMITTED EQUIPMENT

II.A THE APPROVED EQUIPMENT

II.A.1	**Bacchus Works: Plant 1/NIROP/Bacchus West** Rocket propulsion plant in West Valley City
II.A.2	**Building 4B** Ammonium Perchlorate Processing Control: Pulse jet baghouse and HEPA filtration system Baghouse maximum flow rate: 400 acfm Baghouse pressure drop range during processing: Between 1 and 5.2 inches of H_2O

II.A.3	**Area 32A** Burning Grounds
II.A.4	**Building 2387** HMX Dryer Building HMX Dryer Control: Condenser Dryer Stack V-1 (emits IPA and water vapor) IPA vapor ventilation hood Vents inside, listed for informational purposes only
II.A.5	**Building 2440** 3-D Carbon/Carbon Process control: Fume incinerator, 1 MMBtu/hr rate Process control: Central vacuum system
II.A.6	**Building 2471** Case Preparation A. Surface preparation activities Control: Pulse jet baghouse (**NEW**) Baghouse maximum flow rate: 1,500 acfm Baghouse pressure drop range: Between 1 and 7 inches of H_2O B. Two paint spray booths (**NEW**) Control: High efficiency 3-stage fabric filters C. Three spray lance robot booths: SLR-1, SLR-2, SLR-3 (**NEW**) Control: Fabric filters D. One spray lance robot booth: SLR-4 (**NEW**) Control: High efficiency 3-stage fabric filters
II.A.7	**Building 8501** Powerhouse Boilers A. Nebraska natural gas-fired boiler - rated at 50,000 lb/hr (66 MMBtu/hr) B. Murray natural gas-fired boiler - rated at 50,000 lb/hr (66 MMBtu/hr)
II.A.8	**Building 8504** Boilerhouse 42 MMBtu/hr natural gas-fired boiler Building with associated support equipment Control: Low-NO_x natural gas-fired burner Control: Flue gas recirculation NSPS Applicability: Subpart Dc

II.A.9	**Ten (10) Diesel-Fired Emergency Generators >600 Hp** Building Location — Maximum Hp rating 35A — 755* 55 — 755* 2428, Al/AP Prep — 804 2444, Mix #1 — 1340 2449, Cast Cure #1 (south) — 1005 2484, Mix #3 — 1474 2489(A), Cast Cure #2 (west) — 1005 2489(B), Cast Cure #2 (east) — 1005 2500, Mix #2A — 1340 8501, Plt.#1 Powerhouse — 755* *NSPS Applicability: Subpart IIII MACT Applicability: Subpart ZZZZ (applies to all)
II.A.10	**Twelve (12) Diesel-Fired Emergency Generators 100-600 Hp** Building Location — Maximum Hp rating 27 A — 335* 56, Comp. — 402 2430, Al-Premix — 469 2450, Control House — 268 2466, Mix Bowl Clean #2 — 469 2498, Mix Bowl Clean #3 — 536 2507, Subscale ReCast — 469 8501, Plt. #1 Powerhouse — 464* (**NEW**) 8503, Compressor House — 268 8504, Boilerhouse — 168 8569, Wastewater — 335 8695, Pumphouse #3 — 268 *NSPS Applicability: Subpart IIII MACT Applicability: Subpart ZZZZ (applies to all)
II.A.11	**Two (2) Diesel-Fired Emergency Generators <100 Hp** Building Location — Maximum Hp rating 55, Material — 72 8100D, (Admin)PBX — 81 MACT Applicability: Subpart ZZZZ (applies to all)
II.A.12	**One (1) Natural Gas-Fired Emergency Generator** Building Location — Maximum Hp rating 2440, 3D Carbon — 163 NSPS Applicability: Subpart JJJJ MACT Applicability: Subpart ZZZZ

II.A.13	**One (1) Propane-Fired Emergency Generator** Building Location Maximum Hp rating 8275, Microwave Station 16 MACT Applicability: Subpart ZZZZ
II.A.14	**Miscellaneous Buildings** Includes: miscellaneous operations, spray booths, baghouses, ovens, dust collectors, gasoline and diesel tanks, and other processes Gasoline storage tank MACT applicability: Subpart CCCCCC

SECTION II: SPECIAL PROVISIONS

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**Plantwide Limitations and Requirements**
II.B.1.a	The owner/operator shall not allow visible emissions from the following emission points to exceed the following values: A. Diesel-fired emergency generators - 20% opacity B. All other point or fugitive emissions sources, excluding the burning grounds - 10% opacity [R307-401-8]
II.B.1.a.1	Opacity observations of emissions from stationary sources, except haul roads, shall be conducted according to 40 CFR 60, Appendix A, Method 9. [R307-401-8]
II.B.1.a.2	Visible emission determinations for fugitive dust from haul roads shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than one-half vehicle length behind the vehicle and not less than one-half the height of the vehicle. [R307-401-8]
II.B.1.b	The owner/operator shall pave all plant roads and parking lots that are frequently used. Frequent use means any plant road or parking lot that is used on at least a weekly basis. [R307-401-8]
II.B.1.c	The owner/operator shall clean all paved plant roads and parking lots with a street vacuum equipped with a baghouse or with water flooding as necessary to minimize fugitive dust. [R307-401-8]
II.B.1.d	The owner/operator shall equip each paint spray booth with paint arrestor particulate filters, or equivalent, to control particulate emissions. All air exiting the booths shall pass through this control system before being vented to the atmosphere. [R307-401-8]
II.B.1.e	Except when in use, the owner/operator shall store all VOC- and/or HAPs-containing materials and VOC- and/or HAPs-laden rags in covered containers. [R307-401-8]

II.B.2	**HAP Requirements**
II.B.2.a	The owner/operator shall not emit more than the following for plant-wide emissions of HAPs: A. 24.90 tons per rolling 12-month period for all HAPs combined B. 9.90 tons per rolling 12-month period for each individual HAP C. 0.98 tons per rolling 12-month period for 2,4 toluene diisocyanate [R307-401-8]
II.B.2.a.1	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. HAP emissions shall be determined by maintaining a record of HAP-emitting materials used, burned, or destroyed each month. [R307-401-8]
II.B.2.a.2	The record of HAP-emitting materials shall include the following data for each material used: A. Name of the HAPs-emitting material used, such as: rocket propellant, paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc. B. Density of each HAP-emitting material used (lbs/gal) C. Maximum percent by weight of all HAP in each material used D. Gallons of each HAP-emitting material used E. The amount of HAP emitted monthly. The amount of HAP emitted monthly by each material used shall be calculated by the following procedure: HAP = (% HAP by Weight)/100 x [Density (lb/gal)] x (Gal Consumed) x (1 ton/2,000 lb) F. The total amount of HAP emitted monthly from all materials used G. The amount of HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total HAP emissions [R307-401-8]

II.B.2.a.3	The record of HAP-emitting materials shall include the following data for each material burned or destroyed: A. Name of the HAPs-emitting material burned or destroyed, such as: 1.1 rocket propellant or 1.3 rocket propellant B. The weight of all HAP-emitting material burned or destroyed C. The amount of HAP emitted monthly. The amount of HAP emitted monthly by each material burned or destroyed shall be calculated by the following procedure using the following emission factors (EF): HAP = (EF) x [Amount Burned or Destroyed (lbs)] x (1 ton/2,000 lb) 1) 1.1 propellant EFs HCl use EF = 0.014 Cl_2 use EF = 3.1 x 10-5 2) 1.3 propellant EFs HCl use EF = 0.0032 Cl_2 use EF = 0.0 (non-detected) D. The total amount of HAP emitted monthly from all materials burned or destroyed E. The amount of HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total HAP emissions [R307-401-8]
II.B.2.a.4	Total plant-wide HAP emissions shall be determined by summing the total amount of HAP emitted monthly from all HAP-emitting material used with the total amount of HAP emitted monthly from all HAP-emitting material burned or destroyed. [R307-401-8]
II.B.3	**Fuel Requirements**
II.B.3.a	The owner/operator shall use only natural gas as the primary fuel in all fuel-burning furnaces, ovens, boilers, and fume incinerators, and only use fuel oil as a backup fuel in all fuel-burning boilers. [R307-401-8]
II.B.3.b	The owner/operator shall not exceed a total natural gas consumption limit of 733,000 MMBtu per rolling 12-month period for all natural gas-fired equipment on site. [R307-401-8]
II.B.3.b.1	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Natural gas consumption shall be determined by gas billing records. [R307-401-8]
II.B.3.c	The owner/operator shall limit fuel oil usage in all fuel-burning boilers to 48 hours each per rolling 12-month period for periodic testing, maintenance, or operator training. There is no time limit on the use of fuel oil in the fuel-burning boilers during periods of natural gas curtailment, gas supply interruption, or startups. [R307-401-8]

II.B.3.c.1	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records documenting fuel oil usage in each fuel-burning boiler shall be kept in a log and shall include the following: A. The date fuel oil was used B. The duration of operation in hours C. The reason for fuel oil usage [R307-401-8]
II.B.3.d	The sulfur content of any fuel oil burned in all fuel-burning boilers on site shall not exceed 0.50% by weight. [R307-401-8]
II.B.3.d.1	The sulfur content shall be determined by the American Standard for Testing and Materials (ASTM) Method D2880-71, D-4294-89, or approved equivalent. Certification of fuel oil shall be either by the owner/operator's own testing or by test reports from the fuel oil marketer. [R307-401-8]
II.B.4	**Emergency Engine Requirements**
II.B.4.a	The owner/operator shall not operate each emergency engine on site for more than 100 hours per year during non-emergency situations. There is no time limit on the use of the engines during emergencies. [40 CFR 63 Subpart ZZZZ, R307-401-8]
II.B.4.a.1	To determine compliance with a yearly total, the owner/operator shall update records documenting generator usage by January 30th for the preceding year. Records documenting the operation of each emergency engine shall be kept in a log and shall include the following: A. The date the emergency engine was used B. The duration of operation in hours C. The reason for the emergency engine usage. [40 CFR 63 Subpart ZZZZ, R307-401-8]
II.B.4.a.2	To determine the duration of operation, the owner/operator shall install a non-resettable hour meter for each emergency engine. [40 CFR 63 Subpart ZZZZ, R307-401-8]
II.B.4.b	The owner/operator shall only use diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) as fuel in each stationary diesel emergency engine. [R307-401-8]
II.B.4.b.1	The owner/operator shall only combust diesel fuel that meets the definition of ultra-low sulfur diesel (ULSD), which has a sulfur content of 15 ppm or less. [R307-401-8]
II.B.4.b.2	To demonstrate compliance with the ULSD fuel requirement, the owner/operator shall maintain records of diesel fuel purchase invoices or obtain certification of sulfur content from the diesel fuel supplier. The diesel fuel purchase invoices shall indicate that the diesel fuel meets the ULSD requirements. [R307-401-8]
II.B.5	**Area 32A - Burning Ground Requirements**
II.B.5.a	The owner/operator shall use the open burning site to destroy only scrap explosive and hazardous material. The size of the open burning site shall not exceed five acres. [R307-401-8]

II.B.5.b	The owner/operator shall not exceed a daily limit of 4,500 lbs of waste propellant and contaminated waste burned or destroyed per day. [R307-401-8]
II.B.5.b.1	To determine compliance with the daily limit, the owner/operator shall maintain a record of the quantity of waste burned or destroyed on a daily basis. [R307-401-8]
II.B.5.c	When a Salt Lake County "No Burn" order is in effect for wood-burning stoves, open burning of waste propellant and contaminated wastes shall not be performed, except as specified in Condition II.B.5.d. [R307-401-8]
II.B.5.c.1	The owner/operator shall maintain, with the record of waste burned or destroyed on a daily basis, a record of whether or not a Salt Lake County "No Burn" order was in effect for that day. [R307-401-8]
II.B.5.d	When a Salt Lake County "No Burn" order is in effect, the owner/operator is allowed to perform open burning of the most unstable wastes, including nitroglycerin wastes, laboratory-generated wastes, and unburned reactive wastes from a previous burn attempt. The open burning of unstable wastes during a Salt Lake County "No Burn" order shall not exceed 400 lbs per day. [R307-401-8]
II.B.5.d.1	The owner/operator shall maintain a record of the quantity of unstable waste burned or destroyed during a Salt Lake County "No Burn" order. The record shall include the type of waste burned or destroyed. [R307-401-8]
II.B.5.e	The owner/operator is allowed to destroy the backlog of wastes not burned during the Salt Lake County "No Burn" order up to a total of 6,000 lbs per day on the days following the burning restrictions. [R307-401-8]
II.B.5.e.1	The owner/operator shall maintain a record of the quantity of backlogged waste burned or destroyed on the days following a Salt Lake County "No Burn" order. The record shall include the date and reason for open burning. [R307-401-8]
II.B.5.f	The owner/operator shall not burn wastes exceeding 5% chlorine content unless the following conditions are all met: A. Surface wind direction at Building 32A is less than or equal to 112 degrees or more than or equal to 270 degrees B. Elevated wind direction has been verified by a helium balloon C. Wind speed does not exceed 15 miles/hr [R307-401-8]
II.B.5.f.1	The owner/operator shall verify and record the wind speed and direction measurements prior to the burn. The owner/operator shall not verify and record the measurements more than ten minutes before the burn. [R307-401-8]
II.B.6	**Building 2387 (CD3A) - HMX Dryer Building Requirements**
II.B.6.a	The owner/operator shall control emissions from the HMX dryer with the condenser. Emissions from the HMX dryer shall be routed to the operating condenser before being discharged to the atmosphere. [R307-401-8]
II.B.6.b	The owner/operator shall not exceed 450 drying cycles of HMX per rolling 12-month period. [R307-401-8]

II.B.6.b.1	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Drying cycles of HMX shall be determined by an operations log. [R307-401-8]
II.B.7	**Building 2440 - 3D Carbon Building Requirements**
II.B.7.a	The fume incinerator shall control carbon vapor deposition (CVD) emissions from the 3D carbon process. All CVD emissions shall be routed to the operating fume incinerator before being discharged to the atmosphere. [R307-401-8]
II.B.7.b	At all times while incinerating CVD emissions, the owner/operator shall maintain a temperature at or above 1,500 degrees Fahrenheit in the fume incinerator. [R307-401-8]
II.B.7.b.1	The owner/operator shall install, calibrate, maintain, and operate a device to monitor the operating temperature of the fume incinerator. The monitoring device shall be located such that an inspector/operator can safely read the output at any time. The operating temperature of the fume incinerator shall be recorded on a daily basis when the incinerator operates. [R307-401-8]
II.B.7.c	The owner/operator shall operate the fume incinerator at a minimum residence time of 0.5 seconds. [R307-401-8]
II.B.7.c.1	The owner/operator shall maintain the manufacturer's specifications or analysis documenting an incinerator design residence time of no less than 0.5 seconds at maximum flow rate. This documentation shall be kept on site and be readily available for inspection upon request. [R307-401-8]
II.B.7.d	The owner/operator shall equip each weaving machine's ventilation exhaust with particulate filters to control particulate emissions. All exhaust exiting the weaving machines shall pass through this control system before being vented to the atmosphere. [R307-401-8]
II.B.7.e	The owner/operator shall equip the central vacuum system with particulate filters to control particulate emissions. All air exiting the central vacuum system shall pass through this control system before being vented to the atmosphere. [R307-401-8]
II.B.8	**Building 2471 - Case Preparation Building Requirements**
II.B.8.a	The owner/operator shall not exceed 16.0 tons of VOC emissions per rolling 12-month period for all operations in Building 2471. [R307-401-8]

II.B.8.a.1	To determine compliance with a rolling 12-month total, the owner/operator shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. VOC emissions shall be determined by maintaining a record of VOC-emitting materials used each month. The record shall include the following data for each material used: A. Name of the VOC- emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc. B. Density of each VOC-emitting material used (lbs per gallon) C. Maximum percent by weight of all VOC in each material used D. Gallons of each VOC-emitting material used E. The emission release factor (ERF) associated with each type of VOC-emitting material F. The amount of VOC emitted monthly from each material used. The amount of VOC emitted monthly by each material used shall be calculated by the following procedure: VOC = (%VOC by Weight)/100 x [Density (lb/gal)] x (Gal Consumed) x (1 ton/2,000 lb) x ERF G. The total amount of VOC emitted monthly from all materials used H. The amount of VOCs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total VOC emissions [R307-401-8]
II.B.8.b	The owner/operator shall control surface preparation activities in the case preparation building with a baghouse. [R307-401-8]
II.B.8.c	The owner/operator shall install a manometer or magnehelic pressure gauge to measure the differential pressure across the baghouse. The baghouse shall operate within the static pressure range recommended by the manufacturer for normal operations. [R307-401-8]
II.B.8.c.1	Pressure drop readings shall be recorded at least once during each week of operation while the baghouse is operating. Records documenting the pressure drop shall be kept in a log and shall include the following: A. Unit identification; B. Manufacturer-recommended pressure drop for the unit; C. Weekly pressure drop readings; D. Date of reading. [R307-401-8]
II.B.8.c.2	Each pressure gauge shall be located such that an inspector/operator can safely read the indicator at any time. [R307-401-8]

II.B.8.c.3	The instrument shall be calibrated in accordance with the manufacturer's instructions or recommendations or replaced at least once every 12 months. Documentation of calibrations and replacements shall be maintained. [R307-401-8]
II.B.8.d	The owner/operator shall vent all air exiting the Building 2471 spray lance robot booth SLR-1 with a stack release height of no less than 39' 3" as measured from the base of the stack. [R307-410]
II.B.9	**Building 4B - Ammonium Perchlorate Processing Building**
II.B.9.a	The owner/operator shall control emissions from the ammonium perchlorate process with a baghouse and HEPA filtration system in series. Emissions from the ammonium perchlorate process shall be routed to the operating baghouse and HEPA filtration system before being discharged to the atmosphere. [R307-401-8]
II.B.9.a.1	The owner/operator shall install and maintain a high-pressure differential interlock in the HEPA filtration system to shut down the ammonium perchlorate process when the pressure differential goes above the maximum operating set point of 5.2 inches of water column for more than 60 seconds. The ammonium perchlorate process shall not operate without the operating HEPA filtration system interlock. [R307-401-8]
II.B.9.a.2	The owner/operator shall record the pressure drop readings from the differential pressure transmitters on a daily basis. [R307-401-8]

PERMIT HISTORY

This Approval Order shall supersede (if a modification) or will be based on the following documents:

Supersedes	AO DAQE-AN104020057-22 dated August 24, 2022
Is Derived From	Notice of Intent dated September 21, 2021
Incorporates	Additional Information dated October 14, 2021
Incorporates	Additional Information dated June 9, 2022
Incorporates	DAQE-MN104020059-22 dated June 15, 2022

ACRONYMS

The following lists commonly used acronyms and associated translations as they apply to this document:

40 CFR	Title 40 of the Code of Federal Regulations
AO	Approval Order
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDS	Classification Data System (used by Environmental Protection Agency to classify sources by size/type)
CEM	Continuous emissions monitor
CEMS	Continuous emissions monitoring system
CFR	Code of Federal Regulations
CMS	Continuous monitoring system
CO	Carbon monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent - Title 40 of the Code of Federal Regulations Part 98, Subpart A, Table A-1
COM	Continuous opacity monitor
DAQ/UDAQ	Division of Air Quality
DAQE	This is a document tracking code for internal Division of Air Quality use
EPA	Environmental Protection Agency
FDCP	Fugitive dust control plan
GHG	Greenhouse Gas(es) - Title 40 of the Code of Federal Regulations 52.21 (b)(49)(i)
GWP	Global Warming Potential - Title 40 of the Code of Federal Regulations Part 86.1818-12(a)
HAP or HAPs	Hazardous air pollutant(s)
ITA	Intent to Approve
LB/YR	Pounds per year
MACT	Maximum Achievable Control Technology
MMBTU	Million British Thermal Units
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOI	Notice of Intent
NO_x	Oxides of nitrogen
NSPS	New Source Performance Standard
NSR	New Source Review
PM_{10}	Particulate matter less than 10 microns in size
$PM_{2.5}$	Particulate matter less than 2.5 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
R307	Rules Series 307
R307-401	Rules Series 307 - Section 401
SO_2	Sulfur dioxide
Title IV	Title IV of the Clean Air Act
Title V	Title V of the Clean Air Act
TPY	Tons per year
UAC	Utah Administrative Code
VOC	Volatile organic compounds