State of Utah

SPENCER J. COX
Governor

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Lieutenant Governor

Department of
Environmental Quality

Kimberly D. Shelley
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-AN160230003-21

September 9, 2021

Jason Wells
ATK Launch Systems LLC
P.O. Box 707
Brigham City, UT 84302-0707
jason.wells@ngc.com

Dear Mr. Wells:

Re: Approval Order:
Modification to Approval Order to DAQE-AN160230001-20 to Combine Permits and Add Building M-726 the Carbon Composite Manufacturing
Project Number: N160230003

The attached Approval Order (AO) is issued pursuant to the Notice of Intent (NOI) received on July 2, 2020. 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 **Tad Anderson**, who can be contacted at (385) 306-6515 or tdanderson@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.

Sincerely,

Bryce C. Bird
Director

BCB:TA:sa

cc: Bear River Health Department
Dan Fagnant, EPA Region 8
Gail Fallon, EPA Region 8

STATE OF UTAH

Department of Environmental Quality
Division of Air Quality

APPROVAL ORDER
DAQE-AN160230003-21
Modification to Approval Order to DAQE-AN160230001-20 to Combine Permits and Add Building M-726 the Carbon Composite Manufacturing

Prepared By
Tad Anderson, Engineer
(385) 306-6515
tdanderson@utah.gov

Issued to
ATK Launch Systems LLC - Promontory

Issued On
September 9, 2021

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

Mailing Address
P.O. Box 707
Brigham City, UT 84302-0707

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

Source Name
ATK Launch Systems LLC - Promontory

Physical Address
9160 North Hwy. 83
Promontory, UT 84302-0689

UTM Coordinates
380,864 m Easting
4,611,415 m Northing
Datum NAD27
UTM Zone 12

SIC code 3761 (Guided Missiles & Space Vehicles)

SOURCE INFORMATION

General Description
ATK Launch Systems LLC (ATK), Promontory site involves the manufacture and testing of solid rocket motor propulsion systems, explosives, flare illuminants, and composite materials. Reclamation activities are also conducted for the reuse of excessed rocket motor components and propellant. The site consists of the following sources: boilers, emergency generators, operations using VOC compounds, production testing, rocket motor testing and open burning/open detonation (OBOD). The Promontory site is located in a rural area of Box Elder County approximately 20 miles northwest of Brigham City, Utah.

NSR Classification
Minor Modification at Major Source

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

Applicable Federal Standards
NSPS (Part 60), A: General Provisions
NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
NESHAP (Part 61), A: General Provisions
NESHAP (Part 61), M: National Emission Standard for Asbestos
MACT (Part 63), A: General Provisions
MACT (Part 63), ZZZZ: NESHAP for Stationary Reciprocating Internal Combustion Engines

Project Description
ATK has requested to install and operate the M-726 facility. The M-726 facility consists of a new carbon composite manufacturing operation. This operation uses temperature and pressure for the carbonization of composite parts. The operation consists of welding operations, solvent cleaning of parts and an emergency generator. The welding operation emissions will be captured by fume hoods and then controlled by a HEPA filter. The solvent cleaning operations will be conducted as R307-304 and the emissions will be combined into the 75 TPY VOC limit. The emergency generator has the design capacity of 755 hp and are subject to the "Emergency Generator Engine Limitations" and "Sulfur Fuel Limitations."

As part of this modification, the Emergency Generator AO DAQE-AN100090133-16 has been combined into this AO (Process Equipment AO.) The emissions from the Emergency Generators AO have been incorporated into Process Equipment PTE but are not considered an emissions increase. Limits from the Emergency Generator AO have been updated. The tracking of horsepower hours limit has been updated to current standards. The emergency generator opacities have been included into the site-wide opacity limitation. The diesel fuel sulfur conditions have been updated. All limits for the emergency generator (757 hp) located in Building M-016 have been removed. The Building M-016 emergency generator will be operated as all other emergency generators on site.

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	42.00	7272.95
Carbon Monoxide	0.04	64.78
Nitrogen Oxides	0.37	52.61
Particulate Matter - PM_{10}	0.02	189.23
Particulate Matter - $PM_{2.5}$	0.02	10.94
Sulfur Oxides	0.00	3.53
Volatile Organic Compounds	0.02	81.69

Hazardous Air Pollutant	Change (lbs/yr)	Total (lbs/yr)
2,4-Toluene Diisocyanate (CAS #584849)	0	100
Cadmium (CAS #7440439)	0	20
Chloroform (CAS #67663)	0	4000
Chromium Compounds (CAS #CMJ500)	0	20
Chromium III (CAS #16065831)	0	20
Chromium Oxide (CAS #1333820)	0	20
Chromium VI (CAS #18540299)	0	20
Cobalt Compounds (CAS #CNB850)	0	20
Ethyl Benzene (CAS #100414)	0	4000
Formaldehyde (CAS #50000)	0	4000
Generic HAPs (CAS #GHAPS)	20	3960
Hexamethylene-1,6-Diisocyanate (CAS #822060)	0	1200
Hydrazine (CAS #302012)	0	20

Methanol (CAS #67561)	0	6000
Methyl Chloroform (1,1,1-Trichloroethane) (CAS #71556)	0	20000
Methyl Isobutyl Ketone (Hexone) (CAS #108101)	0	3000
Methylene Chloride (Dichloromethane) (CAS #75092)	0	38000
Phenol (CAS #108952)	0	30000
Toluene (CAS #108883)	0	6000
Trichloroethylene (CAS #79016)	0	2000
Xylenes (Isomers And Mixture) (CAS #1330207)	0	16000
	Change (TPY)	**Total (TPY)**
Total HAPs	0.01	69.20

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 of the operations in Building M-726 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]

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II.A.44	**Building M-515** Grandfathered Emergency Generator Fuel Type: Diesel Max. Capacity: 432 hp

II.A.45	**Building M-516** Grandfathered Emergency Generator Fuel Type: Diesel Max. Capacity: 432 hp
II.A.46	**Building M-639** Grandfathered Emergency Generator Fuel Type: Diesel Max. Capacity: 432 hp
II.A.47	**Building M-640** Grandfathered Emergency Generator Fuel Type: Diesel Max. Capacity: 432 hp
II.A.48	**Building M-641** Grandfathered Emergency Generator Fuel Type: Diesel Max. Capacity: 432 hp
II.A.49	**Building M-642** Grandfathered Emergency Generator Fuel Type: Diesel Max. Capacity: 432 hp
II.A.50	**Small Stationary IC Engines** Miscellaneous diesel and gasoline-fired internal combustion engines less than 600 hp
II.A.51	**Miscellaneous Vacuum pumps**

SECTION II: SPECIAL PROVISIONS

II.B REQUIREMENTS AND LIMITATIONS

II.B.1	**Site-Wide Requirements**
II.B.1.a	Visible emissions from any point or fugitive emission source associated with the operations listed in this AO shall not exceed the following values: A. All abrasive blasting operations - 40% opacity, except for an aggregate period of three (3) minutes in any one (1) hour B. All paint spray booths - 10% opacity C. All dust collectors - 10% opacity D. All cyclones - 10% opacity E. All Fume Hoods - 10% opacity F. Silicone Room Exhaust - 10% opacity G. All Ovens - 10% opacity

	H. All Diesel Fired Emergency Generators - 20% opacity I. All Grandfathered Diesel-Fired Emergency Generators - 40% opacity [R307-401-8]
II.B.1.a.1	Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-401-8]
II.B.1.b	ATK shall inspect the HEPA filter banks in Building M-702 and M-726 every six (6) months to verify there are no holes or tears in the filter media and that the filters are installed correctly. [R307-401-8]
II.B.1.b.1	Records of HEPA filter bank inspections shall be kept for all periods when the plant is in operation. HEPA filter bank inspections shall be determined by supervisor maintaining an inspection log. [R307-401-8]
II.B.1.c	All blasting operations shall comply with the abrasive blasting requirements of UAC R307-206. [R307-206]
II.B.2	**VOC and HAP Requirements**
II.B.2.a	The emissions of VOC and HAPs from all operations located in the designated buildings in this AO, that have VOC and HAP emissions associated with their operation shall not exceed: 75.0 tons of VOC per rolling 12-month period 0.05 tons of 2,4-Toluene Diisocyanate per rolling 12-month period 0.5 tons of 4,4-Methylenebiphenyl per rolling 12-month period 2.0 tons of Chloroform per rolling 12-month period 0.01 tons of Chromium (VI) per rolling 12-month period 0.03 tons of Chromium Compounds per rolling 12-month period 2.00 tons of Ethyl Benzene per rolling 12-month period 2.00 tons of Formaldehyde per rolling 12-month period 0.6 tons of Hexamethylene Diisocyanate per rolling 12-month period 3.0 tons of Methanol per rolling 12-month period 10.0 tons of Methyl Chloroform (TCA) per rolling 12-month period 1.5 tons of Methyl Isobutyl Ketone per rolling 12-month period 19.0 tons of Methylene Chloride (MeCl) per rolling 12-month period 15.0 tons of Phenol per rolling 12-month period 3.0 tons of Toluene per rolling 12-month period 1.0 tons of Trichloroethylene per rolling 12-month period 8.0 tons of Xylenes per rolling 12-month period [R307-401-8]
II.B.2.a.1	Compliance with each limitation shall be determined on a rolling 12-month total. Based on the 20th day of each month, a new 12-month total shall be calculated using data from the previous 12 months. [R307-401-8]
II.B.2.a.2	VOC and HAP emissions shall be determined by maintaining a record of VOC- and HAP-emitting materials used each month. The record shall include the following data for each material used: A. Name of the VOC- and HAPs-emitting material, such as: paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc. B. Density of each material used (pounds per gallon)

	C. Percent by weight of all VOC and HAP in each material used D. Gallons of each VOC- and HAP-emitting material used E. The amount of VOC and HAP 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/2000 lb HAP = (% HAP by Weight/100) x [Density (lb/gal)] x Gal Consumed x 1 ton/2000 lb F. The amount of VOCs or HAPs reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above to provide the monthly total VOC or HAP emissions. [R307-401-8]
II.B.3	**Sulfuric Acid Tank Requirements**
II.B.3.a	ATK shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the operating temperature of the sulfuric acid tank in the aluminum anodizing process (Building E 517). When the Anodizing Process is in operation, the operating temperature of the sulfuric acid tank shall not be more than 75°F for more than five (5) minutes and the sulfuric acid concentration shall not be more than 276 gram/liter. [R307-401-8]
II.B.3.a.1	The monitoring device for the temperature must be certified by the Manufacturer to be accurate within plus or minus 5°F and must be calibrated on an annual basis in accordance with the manufacturer's instructions. When the anodizing process is being operated, the temperature of the sulfuric acid tank shall be recorded at a minimum of once per calendar day and the sulfuric acid tank shall be sampled at a minimum of once each week for sulfuric acid concentration following the approved procedures in Standard Laboratory Procedure 538 (SLP-538) dated September 27, 1982 and submitted to DAQ on August 31, 2009. [R307-401-8]
II.B.3.a.2	Records of temperature and acid concentration shall be kept on site. ATK shall also record any calculations used to compute concentrations. Records of manufacturer's instructions, certification of accuracy, and calibration results shall be kept on site. Records shall include: 1. Date of monitoring and calibration 2. Date analyses were performed 3. Company or entity that performed the analyses 4. Analytical techniques or methods used 5. Results of such analyses [R307-401-8]
II.B.4	**Emergency Generators Engine Limitations**
II.B.4.a	The operation of the emergency generators shall not exceed the following limits: A. 2,144,000 hp-hrs of non-emergency operation per rolling 12-month period on the emergency generators that are rated at 600 hp or less

	B. 100 hours of operation per emergency generator for non-emergency situations per calendar year period for each emergency generator covered by this AO [R307-401-8]
II.B.4.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. Records documenting the operation of the 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 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ]
II.B.4.a.2	To determine the duration of operation, the owner/operator shall install a non-resettable hour meter for the emergency engine. [40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ]
II.B.5	**Sulfur Fuel Limitations**
II.B.5.a	The owner/operator shall only use diesel fuel (e.g. fuel oil #1, #2, or diesel fuel oil additives) as fuel in the emergency generator engines. [R307-401-8]
II.B.5.b	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.5.b.1	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 the diesel fuel meets the ULSD requirements. [R307-401-8]

PERMIT HISTORY

This Approval Order shall supersede or will be based on the following documents:

Supersedes	AO DAQE-AN160230001-20 dated August 24, 2020
Is Derived From	NOI dated July 2, 2020
Supersedes	AO DAQE-AN100090133-16 dated December 19, 2016
Incorporates	Additional Information dated May 18, 2021

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