



State of Utah

GARY R. HERBERT
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Lieutenant Governor

Department of
Environmental Quality

Alan Matheson
Executive Director

DIVISION OF AIR QUALITY
Bryce C. Bird
Director

DAQE-AN100090133-16

December 19, 2016

Tom Donehue
ATK Launch Systems Inc.
PO Box 707
Brigham City, UT 84302-0707

Dear Mr. Donehue:

Re: Approval Order: Administrative Amendment of Approval Order DAQE-AN100090120-11 to
Add Emergency Generator
Project Number: N10009-0133

The attached document is the Approval Order for the above-referenced project. Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. The project engineer for this action is Nando Meli Jr. , who may be reached at (801) 536-4052.

Sincerely,

Bryce C. Bird
Director

BCB

cc: Mike Owens
Bear River Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**APPROVAL ORDER: Administrative Amendment of Approval
Order DAQE-AN100090120-11 to Add Emergency Generator**

**Prepared By: Nando Meli Jr., Engineer
Phone: (801) 536-4052
Email: nmeli@utah.gov**

APPROVAL ORDER NUMBER

DAQE-AN100090133-16

Date: December 19, 2016

**ATK Launch Systems Inc.
Promontory
Source Contact:
George Gooch
Phone: (801) 699-0319
Email: george.gooch@atk.com**

**Bryce C. Bird
Director**

Abstract

ATK Launch Systems Inc. (ATK) operates solid rocket manufacturing plant at Promontory Point in Box Elder County. ATK is requesting approval to install an emergency generator in building M-340. Their current AO DAQE-AN100090120-11, issued October 12, 2011 has a limit of 2,144,000 hp-hrs per rolling 12-month period limit for emergency generators that are less than 600 horsepower. The emissions from this limit are calculated using emission factors in AP-42 for the engines less than 600 horsepower. The new 93 hp generator will be included in this limit.

The ATK Promontory site is located in Box Elder County, an attainment area of the NAAQS for all pollutants except $PM_{2.5}$. The NSPS Part 60, Subpart A and Subpart III, and the MACT Part 63, Subpart A and Subpart ZZZZ applies to the new generator. Title V of the 1990 Clean Air Act applies to this source. This source is classified as a major source. The allowable emissions will not change from this modification. The total emissions, in TPY, estimated for the generators located at the ATK site, will be as follows: $PM_{10} = 3.70$, $PM_{2.5} = 3.59$, $NO_x = 51.89$, $SO_2 = 3.52$, $CO = 64.49$, $CO_2e = 2,088.36$, $VOC = 6.67$, and Total HAPs = 0.08.

This air quality AO authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order. This AO is issued to, and applies to the following:

Name of Permittee:

ATK Launch Systems Inc.
PO Box 707
Brigham City, UT 84302-0707

Permitted Location:

Promontory
9160 N Hwy 83
Promontory, UT 84302-0689

UTM coordinates: 380864 m Easting, 4611415 m Northing, UTM Zone 12

UTM Datum: NAD27

SIC code: 3761 (Guided Missiles & Space Vehicles)

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 R307-150 Series. Inventories, Testing and Monitoring. [R307-150]
- I.7 The owner/operator shall comply with UAC R307-107. General Requirements: Breakdowns. [R307-107]

Section II: SPECIAL PROVISIONS

II.A The approved installations shall consist of the following equipment:

II.A.1 Rocket Plant

Stationary Internal Combustion Engines

II.A.2 Emergency Generators > 600 hp

| ATK Building # | Fuel | Maximum Rated Capacity hp |
|----------------|--------|---------------------------|
| A-001 | Diesel | 1340 |
| A-001B | Diesel | 1474 |
| M-016 | Diesel | 757 |
| M-021 | Diesel | 900 |
| M-199 | Diesel | 900 |
| M-315 | Diesel | 900 |
| M-422 | Diesel | 890 |
| M-427 | Diesel | 1586 |

II.A.3 Emergency Generators and IC Engines < 600 hp

| ATK Building # | Fuel | Maximum Rated Capacity hp |
|----------------|--------|---------------------------|
| M-515* | Diesel | 432 |
| M-516* | Diesel | 432 |
| M-639* | Diesel | 432 |
| M-640* | Diesel | 432 |
| M-641* | Diesel | 432 |
| M-642* | Diesel | 432 |

And miscellaneous diesel and gasoline fired stationary internal combustion engines less than 600 horsepower that are not listed above.

* installed pre 1969

II.B Requirements and Limitations

II.B.1 Limitations and Tests Procedures

II.B.1.a Visible emissions from the stationary emergency diesel-fired generators, installed during 1960's, located in Buildings M-515, M-516, M-639, M-640, M-641 and M-642 shall not exceed 40% opacity. Visible emissions from all other stationary internal combustion engines shall not exceed 20% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. Visible emissions from any stationary point or fugitive emission source associated with the source or with the control facilities shall not exceed 20% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9. [R307-401]

II.B.1.b The operation of the emergency generators shall not exceed the following limits:

- A. 1,474,000 horsepower-hours (hp-hrs) of operation per rolling 12-month period on the emergency generators greater than 600 hp per rolling 12-month period.
- B. 2,144,000 hp-hrs of operation per rolling 12-month period on the emergency generators that are rated at 600 hp or less.
- C. 100 hours of operation per emergency generator for maintenance per rolling 12-month period for each emergency generator covered by this AO.

Operation includes periods when the emergency generator is operated for testing and maintenance. Compliance with these limitations shall be demonstrated by a review of operations logs, which are maintained by ATK. The records for the operation of the emergency generators shall be kept on a monthly basis and they shall include the hp-hrs of operation for each emergency generator. ATK shall calculate a new 12-month total by the twentieth day of each month using the data collected during the previous 12 months.

Each ATK-owned stationary internal combustion engine shall be equipped with an individual metering device, which cannot be reset, to measure the number of hours operated. Compliance with the limitations shall be demonstrated on a rolling 12-month total.

Malfunctioning meters shall be replaced upon discovery. Corrections to the hours of operations for malfunctioning meters shall be made by determining the average use-rate for the unit based upon available historical data, not to exceed five years, and prorating the use-rate over the hours since the meter was last known to be operating properly. In the absence of historical data, the hours of operation shall be demonstrated based upon eight hours per day, five days per week operation since the date the meter was last known to be operating properly. [R307-401]

II.B.1.c Emergency generators shall be used for electricity producing operation only during the periods when electric power from the public utilities is interrupted, or for regular maintenance of the generators. Records documenting emergency generator usage shall be kept in a log and they shall show the date the emergency generator was used, the duration in hours of the emergency generator usage, and the reason for each emergency generator usage. [R307-401]

II.B.2 Fuels

II.B.2.a The sulfur content of any fuel oil or diesel burned shall not exceed 0.85 lb/MMBtu for diesel fuels consumed in the generators. The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of used oil shall be either by ATK's own testing, or test reports from the used oil fuel marketer. [R307-401]

II.B.3 Building M-016 Emergency Generator

- II.B.3.a The Building M-016 emergency generator shall comply with the emission standards for new non-road CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for 2007 model year and later emergency stationary CI ICE. [40 CFR 60 Subpart III]
- II.B.3.b ATK shall operate and maintain the Building M-016 emergency generator according to the manufacturer's written instructions or procedures developed by ATK that are approved by the engine manufacturer, over the entire life of the engine. In addition, ATK may only change those settings that are permitted by the manufacturer. ATK shall also meet the requirements of 40 CFR part 89, as they apply to ATK. [40 CFR 60 Subpart III]
- II.B.3.c For the Building M-016 emergency generator, ATK shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [40 CFR 60 Subpart III]
- II.B.3.d The Building M-016 emergency generator shall not exceed 100 hours of maintenance checks and readiness testing per year unless ATK maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency affected emission units beyond 100 hours per year. Any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited. [40 CFR 60 Subpart III]

Section III: APPLICABLE FEDERAL REQUIREMENTS

In addition to the requirements of this AO, all applicable provisions of the following federal programs have been found to apply to this installation. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including UAC R307.

NSPS (Part 60), IIII: Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
NESHAP (Part 61), M: National Emission Standard for Asbestos
MACT (Part 63), ZZZZ: NESHAPs for Stationary Reciprocating Internal Combustion Engines
Title V (Part 70) Major Source

PERMIT HISTORY

This AO is based on the following documents:

| | |
|-----------------|---|
| Supersedes | AO DAQE-AN100090120-11 dated October 12, 2011 |
| Is Derived From | NOI dated November 10, 2016 |
| Incorporates | Additional Information dated November 3, 2016 |

ADMINISTRATIVE CODING

The following information is for UDAQ internal classification use only:

Box Elder County
CDS A
MACT (Part 63), Nonattainment or Maintenance Area, Title V (Part 70) Major Source, Title V (Part 70),
NESHAP (Part 61), Major HAP Source, Attainment Area, NSPS (Part 60)

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 EPA 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 ₂ e | Carbon Dioxide Equivalent - 40 CFR 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 UDAQ use |
| EPA | Environmental Protection Agency |
| FDCP | Fugitive dust control plan |
| GHG | Greenhouse Gas(es) - 40 CFR 52.21 (b)(49)(i) |
| GWP | Global Warming Potential - 40 CFR Part 86.1818-12(a) |
| HAP or HAPs | Hazardous air pollutant(s) |
| ITA | Intent to Approve |
| LB/HR | Pounds per hour |
| 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 |