

# Fact Sheet



## For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on November 19, 2019.

Permit Number: **R30-05700011-2019 (3 of 3)**  
Application Received: **September 4, 2019 (MM01) and January 16, 2020 (MM02)**  
Plant Identification Number: **03-54-05700011**  
Permittee: **Alliant Techsystems Operations LLC**  
Facility Name: **Allegany Ballistics Laboratory**  
Mailing Address: **210 State Route 956, Rocket Center, WV 26726-3548**

Permit Action Number: *MM01 / MM02*      Revised: *August 11, 2020*

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Physical Location:                      Rocket Center, Mineral County, West Virginia  
UTM Coordinates:                      686.47 km Easting • 4381.25 km Northing • Zone 17  
Directions:                                Left on plant access road from State Route 956 at the North Branch of  
the Potomac River

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### Facility Description

SIC Codes: Primary - 3764, Secondary – 3089

Fabrication of both steel and composite structure rocket motor and warhead cases, production of propellants and explosives which are loaded into above cases and all associated case preparation and testing for motors.

The facility is located at three plants - Plant 1, Plant 2 and Plant 3. For Title V Permit purposes, the facility operations were divided into the following Parts:

Part 1 - Motor Manufacturing,

Part 2 - Composites Manufacturing and Metal Fabrication,

Part 3 - Miscellaneous Units.

This Permit covers Part 3 of the facility - Miscellaneous Units.

Modifications MM01 and MM02 reflect the following changes in recently issued permits R13-3186B and R13-3186C:

- Plant 1 - installation of two (2) emergency generators EG-15 and EG-16,
- Plant 2 – replacement of Boiler L-11S with three (3) natural gas-fired boilers L-33S, L-34S and L-35S,
- Plant 3 - construction of two (2) natural gas-fired boilers L-36S and L-37S, installation of three (3) process heaters P3-11S, P3-12S and P3-13S, and installation of one (1) emergency generator EG-14.

Also, permit R13-2023C was superseded and replaced and its requirements were incorporated into permit R13-3186C. In addition, three process heaters (P3-7S, P3-8S and P3-9S), covered by permit R13-3408 (1 of 3), were moved to Part 3 of the facility and were incorporated into permit R13-3186C.

**Emissions Summary**

These modifications result in the following emission changes:

Pollutant	Change in potential emissions (MM01 and MM02) (+ or -), TPY	Change in potential emissions after shutdown of Boiler L-11S (+ or -), TPY
NO <sub>x</sub>	+ 19.62	+ 15.24
CO	+ 13.98	+ 10.52
SO <sub>2</sub>	+ 0.12	- 1.18
PM <sub>10</sub>	+ 1.25	+ 1.17
VOC	+ 0.80	+ 0.58
HAPs	+ 0.27	+ 0.19

**Title V Program Applicability Basis**

With the proposed changes associated with this modification and after shutdown of Boiler L-11S, this facility maintains the potential to emit 145.33 TPY of VOC, 30.89 TPY of Toluene and 53.36 TPY of aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Alliant Techsystems Operations LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

**Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Particulate/Indirect Heat Exchangers
	45CSR10	Sulfur oxides emissions
	45CSR13	Preconstruction permits for sources
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR16	Standards of Performance for New Stationary Sources 40CFR60
	45CSR30	Operating permit requirement.

45CSR34	Emission Standards For Hazardous Air Pollutants
40 C.F.R. 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 C.F.R. 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

State Only:                      None.

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

**Active Permits/Consent Orders**

The active permits/consent orders affected by this modification are as follows:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-3186C	May 26, 2020	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

**Determinations and Justifications**

The following changes will be incorporated during these Title V minor modifications:

1. Emission Units Table 1.1 - three natural gas-fired process boilers L-33S, L-34S and L-35S were added to Plant 2 to replace Boiler L-11S, and Boiler L-11S was removed; two natural gas-fired boilers L-36S and L-37S and three new process heaters P3-11S, P3-12S and P3-13S were added to Plant 3; three existing heaters (P3-7S, P3-8S and P3-9S) were moved from Title V Permit (1 of 3) to Title V Permit (3 of 3); two emergency generators EG-15 and EG-16 were added to Plant 1; and one emergency generator EG-14 was added to Plant 3. Also, new boilers, heaters, and generators were divided between Plant 1, Plant 2, and Plant 3 in the Emission Units Table.
2. Active R13, R14, and R19 Permits Table 1.2 – permit R13-2023C was removed from the table because it was superseded and replaced with the permit R13-3186C. Also, references to this permit were removed throughout.

3. Section 4.0 – per 40 CFR §63.7485 the new boilers (L-33S through L-37S) and process heaters (P3-7E, P3-8E, P3-9E, P3-11S, P3-12S and P3-13S) are subject to 40 C.F.R. 63 Subpart DDDDD “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters” because they are located at a major source of HAPs. They are defined as “new” because they were constructed after June 4, 2010 (per 40 CFR§63.7490(b)). Because the boilers and heaters burn natural gas (distillate oil is only a back-up fuel for boilers), per 40 CFR§63.7499(l) they fall under the “Units designed to burn gas 1 fuels” category. Per 40 CFR§63.7495(a), compliance with the requirements of this subpart must be achieved upon boilers’ and heaters’ start-up. The applicable requirements for these units under 40 C.F.R. 63 Subpart DDDDD are work practice requirements, which are tune-ups every 2 years (biennial) for the units at Plant 2 (Boilers L-33S, L-34S and 35S) and every 5 years for the units at Plant 3 (Boilers L-36S and L-37S, and Heaters P3-7S, P3-8S, P3-9S, P3-11S, P3-12S and P3-13S). The company is required to submit an initial (condition 4.5.2) and periodic (condition 4.5.3) compliance reports based on the required tune-up schedule. “Notification of Compliance Status” must be submitted within 60 days after completion of initial compliance demonstration as per 40 CFR§63.7545(e) (condition 4.5.2).

Condition 4.5.2 is based on two condition of the underlying permit R13-3186C – 5.4.1 and 6.5.1. Condition 6.5.1 of the R13-3186C includes “40 CFR §63.7530(e) and (g)” as applicable requirements for the boilers L-33S through L-35S. Since these boilers are new, and per Table 3 to Subpart DDDDD of 40 CFR 63 “energy assessment” is not applicable to them (only tune-ups are applicable), condition 40 CFR §63.7530(e) doesn’t apply. Also, condition 40 CFR §63.7530(g) is applicable only if the company elects “to demonstrate that a gaseous fuel meets the specifications of another gas 1 fuel”. Therefore, the “40 CFR §63.7530(e) and (g)” conditions were left out of this permit at this time. Also, requirement 6.5.1 of the R13-3186C has citation to “40 CFR §63.7530(d)”, which apparently is a typo, because it is a reserved condition. Therefore, this citation was not included with this permit.

The following requirements were added to this permit:

- for the new boilers L-33S, L-34S, L-35S - 4.1.4,
- for the new boilers L-36S, L-37S - 4.1.5, 4.1.8 and 4.2.2,
- for the new and moved process heaters P3-7E, P3-8E, P3-9E, P3-11S, P3-12S and P3-13S - 4.1.6, 4.1.8 and 4.2.2,
- for existing boilers L-23S through L-32S - 4.1.7.

Requirements 4.1.1.g, 4.1.9 (previously 4.1.4), 4.1.10 (previously 4.1.5), 4.2.1, 4.2.3, 4.2.4, 4.2.5, 4.4.1, 4.4.2, 4.4.3 (previously 4.4.4), 4.5.1, 4.5.2, 4.5.3 and 4.5.5 for existing and new boilers and heaters were revised based on permit R13-3186C. Old requirement 4.2.2 was deleted because it was combined with revised condition 4.2.5. Requirement 4.2.6 was deleted because it was combined with revised condition 4.2.3. Requirement 4.4.3 was deleted because it was not included with the R13-3186C permit. Requirement 4.4.5 was deleted because it was combined with revised condition 4.4.1. Requirement 4.5.6 was deleted because it was removed from the permit R13-3186C and replaced with revised condition 4.5.3. Requirement 4.5.7 was deleted because it was combined with revised condition 4.5.2. Requirement 4.5.8 was deleted because it was removed from the permit R13-3186C and replaced with revised condition 4.5.1.

Requirement 6.1.4 of the permit R13-3186C (“The permittee shall permanently shut down Boiler L-11S within 180 days after initial startup of either L-33S, L-34S, or L-35S”) was not included with the permit, because it was obsolete - Boiler L-11S was shut down during the permit modification process.

4. Section 7.0 – added requirements for the new emergency generators EG-14, EG-15 and EG-16.

Below is 40 C.F.R. 63 Subpart ZZZZ applicability table for the new generators:

**Engines EG-14, 15, 16 Applicability Table for 40 C.F.R. 63 Subpart ZZZZ**

Emission Unit ID / Emission Point ID	Description	Type	Installed / Manufactured - New / Existing	Design Capacity / Subpart ZZZZ applicability	Control Device	Source of HAPs
EG-14	Emergency Diesel Generator	CI, no diesel particulate filter, displacement 13.5 l/cyl.	2020 - new (constr. after 12/19/2002)	755 bhp (> 500 bhp), ZZZZ applies	None	Major
EG-15	Emergency Diesel Generator	CI, no diesel particulate filter, displacement 3.4 l/cyl.	2019 - new (constr. after 6/12/2006)	67 bhp (≤ 500 bhp), ZZZZ applies through III only	None	Major
EG-16	Emergency Diesel Generator	CI, no diesel particulate filter, displacement 6.8 l/cyl.	2019 - new (constr. after 6/12/2006)	237 bhp (≤ 500 bhp), ZZZZ applies through III only	None	Major

Based on the applicability determination above, since generator EG-14 is new and has capacity above 500 hp, it is subject to the following applicable requirements of 40 C.F.R. 63 Subpart ZZZZ: 40 C.F.R. §63.6604(c), §63.6605, §63.6640, §63.6645(f) and §63.6650(h). These requirements are already included in permit conditions 7.1.6(b), 7.1.7, 7.1.8(f), 7.5.1, 7.5.2, applicable to engines EG-6, EG-7, EG-9, EG-11, EG-12, EG-13. Also, condition 40 C.F.R. §63.6600(c) applicable to engines EG-2, EG-6, EG-7, EG-9, EG-11, EG-12, EG-13 and EG-14, was added to requirement 7.1.5.

Since generators EG-15 and EG-16 are new and have capacity below 500 hp, the only applicable requirement of 40 C.F.R. 63 Subpart ZZZZ is 40 C.F.R. §63.6590(c) (condition 7.1.5) which states that meeting the requirements of 40 C.F.R. 60 Subpart III will meet the requirements of 40 C.F.R. 63 Subpart ZZZZ. 40 C.F.R. §63.6590(c) is also applicable to generator EG-10.

In terms of 40 C.F.R. 60 Subpart III applicability to the new engines EG-14, EG-15 and EG-16 - below is the applicability Table:

**Engines EG-14, 15, 16 Applicability Table for 40 C.F.R. 60 Subpart III**

Emission Unit ID / Emission Point ID	Description	Type	Installed (Constructed, Manufactured) / Subpart III applicability	Design Capacity	Control Device	Source of HAPs
EG-14	Emergency Diesel Generator	CI, no diesel particulate filter, displacement 13.5 l/cyl.	2020 (constr. after 7/11/2005, manuf. after 4/1/2006) / III applies	755 bhp (> 500 bhp)	None	Major
EG-15	Emergency Diesel Generator	CI, no diesel particulate filter, displacement 3.4 l/cyl.	2019 (constr. after 7/11/2005, manuf. after 4/1/2006) / III applies	67 bhp (≤ 500 bhp)	None	Major
EG-16	Emergency Diesel Generator	CI, no diesel particulate filter, displacement 6.8 l/cyl.	2019 (constr. after 7/11/2005, manuf. after 4/1/2006) / III applies	237 bhp (≤ 500 bhp)	None	Major

Since all three generators were constructed after 7/11/2005 and manufactured after 4/1/2006, 40 C.F.R. 60 Subpart III applies (per 40 C.F.R. §60.4200(2)(i)). The engines are certified. They are each limited to 100 hrs per year of non-emergency operations. All applicable 40 C.F.R. 60 Subpart III requirements for the engines EG-14, EG-15, EG-16, as well as other R13-3186C requirements for these engines are included in Section 7.0 of this permit under conditions 7.1.9, 7.1.10, 7.1.11, 7.2.2,

7.3.1, 7.4.2, 7.4.6 and 7.4.7. A compliance demonstration requirement 40 C.F.R. §60.4211(g)(1), applicable to EG-15 (since its capacity is below 100 hp) was added to condition 7.1.9. Also, requirement 7.1.10 (based on R13-3186C, requirements 4.1.3 and 5.1.4) was modified to remove 40 C.F.R. 60 Subpart III based conditions, which were already included with the requirement 7.1.9. The citation “45CSR13, R13-3186C, 4.1.3.a through d, 4.1.3.f, 5.1.4.a through d, 5.1.4.f” was added to requirement 7.1.9. In addition, requirement 7.1.12 (40 C.F.R. §60.4211(g)(3)), applicable to engine EG-13, was deleted since condition 7.1.9 already includes this requirement.

In summary, all of Part 3 of 3 facility’s emergency generators can be grouped as follows per 40 C.F.R. 63 Subpart ZZZZ and 40 C.F.R. 60 Subpart III applicability:

- Both subparts applicable (new engines > 500 hp): EG-7, 9, 11, 12, 13, 14;
- Both subparts applicable, but shows compliance with Subpart ZZZZ via Subpart III (new engines ≤ 500 hp): EG-10, 15, 16;
- Subpart ZZZZ applicable only (existing engines): EG-1, 2, 3, 4, 5, 6 (new > 500 hp, but constructed in 2004 so not subject to Subpart III), 8.

Additionally, typos in requirements 7.4.3 and 7.4.4 were fixed – these requirements referred to conditions “7.1.10” and “7.1.11”, but they are supposed to refer to conditions “7.1.3” and “7.1.4” (respectively).

5. Attachments – Attachment 1 was re-named from “Appendix A of the Permit R13-2023C” to “Appendix A of the Permit R13-3186C” (former Attachment 3 name) because permit R13-2023C was superseded and replaced and since both former attachments 1 and 3 were identical. Former Attachment 3 was removed from the permit.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

None.

### **Request for Variances or Alternatives**

None.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: Not Applicable for minor modifications.  
Ending Date: N/A

### **Point of Contact**

All written comments should be addressed to the following individual and office:

Natalya V. Chertkovsky-Veselova  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
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### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Response to Comments (Statement of Basis)**

Not applicable.