

# Fact Sheet



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

Permit Number: **R30-05700011-2019 (3 of 3)**  
Application Received: **January 14, 2019 (renewal) / May 3, 2019 (MM02)**  
Plant Identification Number: **057-00011**  
Permittee: **Alliant Techsystems Operations LLC**  
Facility Name: **Allegany Ballistics Laboratory**  
Mailing Address: **210 State Route 956, Rocket Center, WV 26726-3548**

---

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

---

### **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 two plants - Plant 1 and Plant 2. 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.

**Emissions Summary**

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2017 Actual Emissions</b>
Carbon Monoxide (CO)	59.97	20.06
Nitrogen Oxides (NO <sub>x</sub> )	41.31	22.10
Particulate Matter (PM <sub>2.5</sub> )	4.88	1.10
Particulate Matter (PM <sub>10</sub> )	12.34	1.11
Total Particulate Matter (TSP)	23.22	2.02
Sulfur Dioxide (SO <sub>2</sub> )	33.67	0.17
Volatile Organic Compounds (VOC)	144.75	23.56

*PM<sub>10</sub> and PM<sub>2.5</sub> are component of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2017 Actual Emissions</b>
Acetonitrile	0.27	0.03
Antimony compounds*	0.01	0
Benzene	0.37	0.04
Cadmium compounds*	0.01	0
Chloroform	0.10	0.01
Chromium*	0.01	0
Chromium compounds (not identified)*	0.14	0.02
Cobalt*	0.01	0
Diethyl phthalate	0.85	0
Ethyl benzene	0.62	0.06
Formaldehyde	0.03	0.01
Glycol ether compounds	0.06	0
Hexane	0.80	0.07
Hydrochloric Acid	4.40	1.0
Lead*	1.33	0.24
Lead compounds*	0.01	0

Hazardous Air Pollutants	Potential Emissions	2017 Actual Emissions
Mercury*	0.01	< 0.01
Methanol	1.81	0.16
Methyl isobutyl ketone (MIBK)	3.73	0.33
Methylene chloride	2.0	1.12
Nickel*	0.01	0.01
Phenol	0.16	0.02
Strontium chromate*	0.01	0
Toluene	30.89	2.67
Trichloroethylene (TCE)	0.13	0
Xylenes (Mixed Isomers)	5.29	0.46
Zinc chromate*	0.01	0
Other (not specified)	0.10	0
Total HAPs	53.17	< 6.26

\* Component of TSP emissions in Plantwide Emission Summary table above

Some of the above HAPs may be counted as PM or VOCs.

**Title V Program Applicability Basis**

This facility has the potential to emit 144.75 TPY of VOC, 30.89 TPY of Toluene and 53.17 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.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Particulate/Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR7	Fugitive dust, particulate matter, and visible emissions
	45CSR10	Sulfur oxides emissions
	45CSR13	Preconstruction permits for sources
	45CSR16	New Stationary Sources 40C.F.R.60 (NSPS)
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.

	45CSR34	Emission Standards For Hazardous Air Pollutants
	40 C.F.R. 60, Subpart III	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:	45CSR4	No objectionable odors.
	45CSR27	Toxic Air Pollutants

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**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R13-1771B	04/27/2004	
R13-2023C	05/05/2014	
R13-2301A	07/13/2001	
R13-3186A	06/12/2019	
G60-C020	09/30/2010	
G60-C066	11/20/2014	

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 modifications have occurred to the Title V renewal permit since its issuance on July 29, 2014:

Minor Modification MM01 – issued 01/05/2015 (based on R13-3186); included construction of a new natural gas-fired steam system (Building 850 Steam Plant). Upon completion of the project, coal-fired

Boiler No. 17 and distillate oil-fired Boilers No. 15 and 16, and all the associated equipment related to coal fuel and coal ash had to be permanently shut down.

Minor Modification MM02 – combined with this permit renewal (based on R13-3186A) – correction of the emergency generator EG-13 power output rating based on the engine name plate info (from “750 kW/1046 bhp” to “890 kW/1193 bhp”).

The following changes will be incorporated during this Title V renewal:

1. Emission Units Table 1.1 – the coal-fired Boiler No. 17 (and all the associated equipment related to coal fuel and coal ash) and distillate oil-fired Boilers No. 15 and 16 were removed from section 00L because they have been permanently shut down (see Minor Modification MM01 description above); Section “MAC Warhead Aluminum Preparation – Group 00X” was removed from the Table because this operation no longer exists at the facility; and the Emission Unit ID for the Boiler Feedwater Chemical Tank -8501 was corrected from “L-21S” to “L-22S”.
2. Active R13, R14, and R19 Permits Table 1.2 – permit R13-0974A was placed inactive on 09/21/2017, therefore it was removed from the table. Also, references to this permit were removed throughout.
3. Requirement 3.4.5 – moved to Section 4 (condition is 4.4.6) since it is applicable only to Boilers (Emission Unit IDs L-23S through L-32S).
4. Requirements 3.1.9, 3.2.1, 3.4.4 and 3.5.10 – moved to Section 5 (conditions 5.1.5, 5.2.1, 5.4.6 and 5.5.1) since they are applicable only to the equipment at the Research Complex.
5. Permit Shield Condition 3.7.2 – previous section 3.7.2 (b) (40CFR63, Subpart GG, Section 63.745) was deleted because this exemption is no longer applicable; section 3.7.2 (c) (40 C.F.R. 63, Subpart GGGGG) was revised to reflect the current situation with Plant 2 investigation under the RCRA corrective action program.
6. Section 4.0 - requirements related to the R13-0974A (4.1.1 through 4.1.4, 4.1.7 through 4.1.10, 4.2.1 through 4.2.5, 4.3.1, 4.3.2, 4.4.1, 4.4.2, 4.4.5, 4.4.6, 4.4.7, 4.5.5) were removed from the permit since the coal-fired Boiler No. 17 and distillate oil-fired Boilers No. 15 and 16, and all the associated equipment related to coal fuel and coal ash, were permanently shut down (see Minor Modification MM01 description above in this Determinations and Justifications Section), and the permit R13-0974A that covered this equipment was placed inactive (see item 2 of the Determinations and Justifications Section above). The rest of the boiler requirements based on permits R13-2023C and R13-3186A were re-numbered accordingly.
7. Class II General Permit G60-D and General Permit Registration G60-C020 - all applicable requirements of the Class II General Permit G60-D and General Permit Registration G60-C020 were included in Section 7.0 in place of the attached General Permit Registration G60-C020 and Class II General Permit G60-C (Attachments 5 and 6 were eliminated from the Title V permit). Also, since the previous permit renewal was issued, the Class II General Permit G60-C was replaced by Class II General Permit G60-D, therefore all references to the General Permit “G60-C” were revised to “G60-D”.
8. Class II General Permit G60-D and General Permit Registration G60-C066 – it was issued for engines EG-11 and EG-12 on November 20, 2014, after the latest Title V permit renewal, and the Title V permit was not updated to include this permit. Therefore, all applicable requirements of the Class II General Permit G60-D and General Permit Registration G60-C066 were included in Section 7.0 during this permit renewal.
9. 40 C.F.R. 63 Subpart ZZZZ - below is the Applicability Table for engines EG-1 through EG-13. All applicable requirements of 40 C.F.R. 63 Subpart ZZZZ are included in Section 7.

**Engines EG-1 through EG-13 Applicability Table for 40 C.F.R. 63 Subpart ZZZZ**

<b>Emission Unit ID / Emission Point ID</b>	<b>Description</b>	<b>Type</b>	<b>Installed / Manufactured - New / Existing</b>	<b>Design Capacity</b>	<b>Control Device</b>	<b>Source of HAPs</b>
EG-1	Portable Emergency Diesel Generator	CI, no diesel particulate filter	1998 - existing (constr. before 6/12/2006)	167.6 bhp / 1800 rpm ( $\leq$ 500 bhp)	None	Major
EG-2*	Emergency Diesel Generator	CI, no diesel particulate filter	2000 - existing (constr. before 12/19/2002)	600 bhp / 1800 rpm ( $>$ 500 bhp)	None	Major
EG-3	Emergency Diesel Generator	CI, no diesel particulate filter	1999- existing (constr. before 6/12/2006)	241.4 bhp / 1800 rpm ( $\leq$ 500 bhp)	None	Major
EG-4	Emergency Diesel Generator	CI, no diesel particulate filter	1995- existing (constr. before 6/12/2006)	490 bhp / 1800 rpm ( $\leq$ 500 bhp)	None	Major
EG-5	Emergency Diesel Generator	CI, no diesel particulate filter	1998 - existing (constr. before 6/12/2006)	490 bhp / 1800 rpm ( $\leq$ 500 bhp)	None	Major
EG-6	Emergency Diesel Generator	CI, no diesel particulate filter	2004 - new (constr. after 12/19/2002)	1207 bhp / 1800 rpm ( $>$ 500 bhp)	None	Major
EG-7	Emergency Diesel Generator	CI, no diesel particulate filter	2008 - new (constr. after 12/19/2002)	757 bhp / 1800 rpm ( $>$ 500 bhp)	None	Major
EG-8	Emergency Diesel Generator	CI, no diesel particulate filter	Before 1990 - existing (constr. before 6/12/2006)	90 bhp / 1800 rpm ( $\leq$ 500 bhp)	None	Major
EG-9	Emergency Diesel Generator	CI, no diesel particulate filter	2010 - new (constr. after 12/19/2002)	1675.25 bhp / 1800 rpm ( $>$ 500 bhp)	None	Major
EG-10**	Emergency Diesel Generator	CI, no diesel particulate filter	November 2006 - new (constr. on or after 6/12/2006)	157.5 bhp / 1800 rpm ( $\leq$ 500 bhp)	None	Major
EG-11	Emergency Diesel Generator	CI, no diesel particulate filter	2012 - new (constr. after 12/19/2002)	670.5 bhp / 1800 rpm ( $>$ 500 bhp)	None	Major

Emission Unit ID / Emission Point ID	Description	Type	Installed / Manufactured - New / Existing	Design Capacity	Control Device	Source of HAPs
EG-12	Emergency Diesel Generator	CI, no diesel particulate filter	2012 - new (constr. after 12/19/2002)	3352.3 bhp / 1800 rpm (> 500 bhp)	None	Major
EG-13	Emergency Diesel Generator	CI, no diesel particulate filter	2015 - new (constr. after 12/19/2002)	1193 bhp / 1800 rpm (> 500 bhp)	None	Major

\*Engine EG-2 is currently out of service, but it was left in the Title V permit in case it is used again in the future.

\*\* Since Engine EG-10 is a new stationary RICE and is subject to the requirements of 40 C.F.R. 60 Subpart IIII (see item (10) of the Determinations and Justifications section below), per 40 C.F.R. §63.6590(c) it must meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart IIII.

10. 40 C.F.R. 60 Subpart IIII - below is the applicability Table for engines EG-1 through EG-13. All applicable requirements of 40 C.F.R. 60 Subpart IIII are included in Section 7.

**Engines EG-1 through EG-13 Applicability Table for 40 C.F.R. 60 Subpart IIII**

Emission Unit ID / Emission Point ID	Description	Type	Installed / Manufactured - Subpart IIII Applies / Doesn't apply	Design Capacity	Control Device	Source of HAPs
EG-1	Portable Emergency Diesel Generator	CI, no diesel particulate filter	1998 – doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	167.6 bhp / 1800 rpm (≤ 500 bhp)	None	Major
EG-2	Emergency Diesel Generator	CI, no diesel particulate filter	2000 – doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	600 bhp / 1800 rpm (> 500 bhp)	None	Major
EG-3	Emergency Diesel Generator	CI, no diesel particulate filter	1999– doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	241.4 bhp / 1800 rpm (≤ 500 bhp)	None	Major
EG-4	Emergency Diesel Generator	CI, no diesel particulate filter	1995– doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	490 bhp / 1800 rpm (≤ 500 bhp)	None	Major
EG-5	Emergency Diesel Generator	CI, no diesel particulate filter	1998 – doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	490 bhp / 1800 rpm (≤ 500 bhp)	None	Major

Emission Unit ID / Emission Point ID	Description	Type	Installed / Manufactured - Subpart III Applies / Doesn't apply	Design Capacity	Control Device	Source of HAPs
EG-6	Emergency Diesel Generator	CI, no diesel particulate filter	2004 – doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	1207 bhp / 1800 rpm (> 500 bhp)	None	Major
EG-7	Emergency Diesel Generator	CI, no diesel particulate filter	2008 - applies (constr. after 7/11/2005, manuf. after 4/1/2006)	757 bhp / 1800 rpm (> 500 bhp)	None	Major
EG-8	Emergency Diesel Generator	CI, no diesel particulate filter	Before 1990 – doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	90 bhp / 1800 rpm (≤ 500 bhp)	None	Major
EG-9	Emergency Diesel Generator	CI, no diesel particulate filter	2010 - applies (constr. after 7/11/2005, manuf. after 4/1/2006)	1675.25 bhp / 1800 rpm (> 500 bhp)	None	Major
EG-10	Emergency Diesel Generator	CI, no diesel particulate filter	November 2006 - applies (constr. after 7/11/2005, manuf. after 4/1/2006)	157.5 bhp / 1800 rpm (≤ 500 bhp)	None	Major
EG-11	Emergency Diesel Generator	CI, no diesel particulate filter	2012 / 2002 – doesn't apply (constr. before 7/11/2005, manuf. before 4/1/2006)	670.5 bhp / 1800 rpm (> 500 bhp)	None	Major
EG-12	Emergency Diesel Generator	CI, no diesel particulate filter	2012 / 2008 – applies (constr. after 7/11/2005, manuf. after 4/1/2006)	3352.3 bhp / 1800 rpm (> 500 bhp)	None	Major
EG-13	Emergency Diesel Generator	CI, no diesel particulate filter	2015 / 2008 – applies (constr. after 7/11/2005, manuf. after 4/1/2006)	1193 bhp / 1800 rpm (> 500 bhp)	None	Major

11. Attachment 2 (Certification of Data Accuracy (reverse side of APPENDIX B of the Permit R13- 2023C and Attachment B to the Permit R13-1771B) was removed because it is no longer needed.

**Non-Applicability Determinations**

1. The following requirements have been determined not to be applicable to the subject facility due to the following (included with the current Permit Shield, condition 3.7.2):
  - (a) 45CSR21– Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds. The facility is not located in a county that is currently subject to 45CSR21, and is therefore currently exempt from this regulation.
  - (b) 40 C.F.R. 63, Subpart PPP – National Emission Standards for Polyether Polyol Production. The facility manufactures Terathane Polyethylene Glycol Block Copolymer

(TPEG), which is a Polyether Polyol. However, the operation is exempted from this MACT because there are no HAPs used or generated during the manufacturing operation.

- (c) 40 C.F.R. 63, Subpart GGGGG – National Emission Standards for Site Remediation. The facility currently has two sites under remediation for groundwater contamination. These sites are both CERCLA (“Superfund”) sites and are thus exempt from the MACT requirements. The facility also has a third site, commonly referred to as Plant 2, which is currently being investigated under the RCRA corrective action program, that could potentially require some form of active groundwater remediation or treatment within the next five to ten years. This site would also be exempted since it is being managed under a RCRA corrective action.
  - (d) 40 C.F.R. 63, Subpart WWWW – National Emission Standards for Reinforced Plastic Composites Manufacturing. The facility manufactures composite based rocket motor chambers and aircraft components. However, the facility is exempt from this MACT because none of the resin or fiber systems used, contain HAPs.
2. CAM Rule - the Alliant Techsystems Operations LLC, Allegany Ballistics Laboratory Motor Manufacturing Facility (Part 3 of 3) does not own or operate a subject pollutant specific emissions unit as defined in 40 C.F.R. §64.1, because all plant control devices either have potential pre-control device annual emissions of applicable regulated air pollutants that are less than major source threshold, and thus are exempt per 40 C.F.R. §64.2(a)(3), or are already subject to a Title V permit that specifies a continuous compliance determination method as defined in 40 C.F.R. §64.1, and thus are exempt from CAM requirements per 40 C.F.R. §64.2(b)(1)(vi), or are not subject to a regulated air pollutant emission limitation or standard, and thus are not subject to CAM requirements per 40 C.F.R. §64.2(a)(1).

### **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: October 1, 2019  
Ending Date: October 31, 2019

### **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  
Phone: 304/926-0499 ext. 1220 • Fax: 304/926-0478  
Natalya.V.Chertkovsky@wv.gov

### **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.