

# Fact Sheet



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

Permit Number: **R30-05700011-2024 (3 of 3)**  
Application Received: **May 8, 2024 (renewal) / February 28, 2024 (SM01)**  
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**

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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 four plants - Plant 1, Plant 2, Plant 3 and Plant IV. 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.

Significant Modification SM01 is included with this renewal permitting action and is based on recently issued underlying permit R13-3186E. It covers the installation of two process heaters (Emission Unit IDs P4-5S and P4-6S), and one emergency engine (Emission Unit ID EG-19) at Plant IV.

### Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2023 Actual Emissions</b>
Carbon Monoxide (CO)	410.62	20.63
Nitrogen Oxides (NO <sub>x</sub> )	331.94	23.76
Particulate Matter (PM <sub>2.5</sub> )	7.1	4.02
Particulate Matter (PM <sub>10</sub> )	18.07	7.89
Total Particulate Matter (TSP)	89.11	7.93
Sulfur Dioxide (SO <sub>2</sub> )	283.18	0.23
Volatile Organic Compounds (VOC)	223.58	29.58

*PM<sub>10</sub> is a component of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2023 Actual Emissions</b>
Acetonitrile	0.27	0.01
Antimony compounds*	0.01	< 0.01
Benzene	0.37	0.15
Cadmium compounds*	0.01	0
Bis (2-Ethylhexyl) Phthalate (HAP)	0.2	0.02
Chloroform	0.10	0.05
Chromium*	0.01	< 0.01
Chromium compounds (not identified)*	0.14	0
Cobalt*	0.01	0
Diocetyl phthalate	0.85	0
Ethyl benzene	0.62	0.26
Formaldehyde	0.03	< 0.01
Glycol ether compounds	0.06	< 0.01
Hexane	0.96	0.08
Hydrochloric Acid	6.44	3.65

Hazardous Air Pollutants	Potential Emissions	2023 Actual Emissions
Lead*	1.98	0.27
Lead compounds*	0.01	0
Mercury*	0.01	< 0.01
Methanol	1.81	0.15
Methyl isobutyl ketone (MIBK)	3.73	0.48
Methylene chloride	2.0	1.09
Naphthalene	0.02	< 0.01
Nickel*	0.01	< 0.01
Phenol	0.16	< 0.01
Strontium chromate*	0.01	0
Styrene	0.37	0.02
Toluene	30.89	1.56
Trichloroethylene (TCE)	0.13	0
Xylenes (Mixed Isomers)	5.29	1.28
Zinc chromate*	0.01	0
Other (not specified)	0.12	0
Total HAPs	56.63	< 9.15

\* 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 223.58 TPY of VOC, 331.94 TPY of NO<sub>x</sub>, 283.18 TPY of SO<sub>2</sub>, 410.62 TPY of CO, 30.89 TPY of Toluene and 56.04 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) (15)	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 Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
	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:	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	
R13-2301A	07/13/2001	
R13-3186E	06/04/2024	
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 changes to the permit covered by Significant Modification SM01 (based on permit R13-3186E) were included with this renewal permitting action:

1. Emission Units Table 1.1 – added two new process heaters 10.2 MMBtu/hr each (Emission Unit IDs P4-5S and P4-6S), and one 48.8 Bhp emergency engine (Emission Unit ID EG-19) to Plant IV.
2. Boilerplate - revised in conditions 3.1.6, 3.3.1 and 3.3.1.b.
3. Section 4.0 – the new process heaters P4-5S and P4-6S are located at a major source of HAPs, therefore they are subject to 40 C.F.R. 63 Subpart DDDDD. Since they were constructed after June 4, 2010, per 40 C.F.R. §63.7490(b) they are considered new, and need to comply with the requirements of this Subpart upon startup (40 C.F.R. §63.7495(a)). Since these heaters are in the “designed to burn gas 1 fuels subcategory” (natural gas), per 40 C.F.R. §63.7500(e) they “are not subject to the emission limits in Tables 1 and 2 or Tables 11 through 15 to this subpart, or the operating limits in Table 4 to this subpart”. They are only subject to work practice requirements in Table 3 (line 3) including tune-ups – units greater than 10 MMBtu/hr without oxygen trim systems are required to be tuned up once every year (condition 4.1.11.e). Applicable requirements for the heaters were already included in the permit under existing conditions 4.1.9, 4.4.3, 4.5.2 and 4.5.3. Also, new requirements 4.1.11, 4.1.12 (PM Weight Emission Standards 45CSR§2-4.1), 4.1.13 (Sulfur Dioxide Weight Emission Standards for Fuel Burning Units per 45CSR§10-3.3.6), 4.2.2, 4.4.5 (recordkeeping per 45CSR§2-8.3.3 and 45CSR§2A-7.1.a.1), and 4.4.6 (recordkeeping per 40 C.F.R. 60, Subpart Dc §60.48c(g)(2)) were added.

The following sentence was left out of the Title V permit condition 4.1.11.d (underlying condition 7.1.1.d): “These heaters (*P4-5S and P4-6S*) are excluded from the standards of 45CSR§2-4.1 and 45CSR§10-3.1.e due to this heat input limit” because it is a mistake. Per 45CSR§2-11.1, only fuel burning units with a heat input under 10 MMBtu/hr will be exempt from sections 4, 5, 6, 8 and 9, and, per 45CSR§10-10.1, only fuel burning units having a design heat input under 10 million MMBtu/hr will be exempt from section 3 and sections 6 through 8. Therefore, since each of these heaters’ design heat input is above 10 MMBtu/hr, standards of 45CSR§2-4.1 and 45CSR§10-3.3.6 are applicable. However, because the heaters are fired with pipeline quality natural gas, they are exempt from the testing and monitoring requirements of 45CSR§§2-8.1.1 and 8.2 and the testing, monitoring, recordkeeping and reporting requirements of 45CSR§10-8. Streamlining language was added under conditions 4.1.12 and 4.1.13 of the Title V permit.

- 45CSR§2-4.1 (condition 4.1.12) –Total Allowable PM Emission Rate for heaters P4-5S and P4-6S – the heaters are considered “type b” units, therefore, total allowable PM emission rate is 1.836 lbs/hr ( $0.09 \times 2 \times 10.2$  MMBtu/hr). There are no PM emission limits for the heaters in the permit, but total PTE for PM for both heaters is 0.36 lbs/hr, and it is well below the total allowable PM emission rate. Therefore, the heaters are in compliance with the 45CSR§2-4.1 standard.
  - 45CSR§10-3.3.6 (condition 4.1.13) – SO<sub>2</sub> Weight Emission Standards for heaters P4-5S and P4-6S - the heaters are considered “type b or c” units, therefore, for  $2 \times 10.2$  MMBtu/hr heaters total allowable SO<sub>2</sub> weight emission rate is  $10.2 \times 2 \times 3.2 = 65.28$  lbs/hr. There are no SO<sub>2</sub> emission limits for the heaters in the permit, but total PTE for SO<sub>2</sub> for both heaters is 0.01 lbs/hr, and it is well below the total allowable SO<sub>2</sub> weight emission rate. Therefore, the heaters are in compliance with the 45CSR§10-3.3.6 standard.
4. Section 7.0 – the new emergency CI engine EG-19 is a certified engine, and it is subject to requirements of 40 C.F.R. 60 Subpart IIII. Per 40 C.F.R. 63 Subpart ZZZZ §§63.6590(c)(6) and (c)(7), “a new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions” and “a new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions” “must meet the requirements of this part by meeting the requirements of 40 C.F.R. part 60 subpart IIII, for compression ignition engines”, therefore, the emergency engine is not subject to any other requirements of Subpart ZZZZ. Applicable requirements for the emergency engine were already included in the permit under existing conditions 7.1.9 through 7.1.11, 7.2.2, 7.3.1, 7.4.2, 7.4.6 and 7.4.7.

In addition, conditions 7.1.5, 7.2.1, and 7.4.1 were revised due to changes to 40 C.F.R. 63 Subpart ZZZZ.

5. Section 7.0 of the underlying permit R13-3186E was re-named to “Section 8.0”, therefore, all the underlying conditions from former Section 7.0 were re-numbered accordingly throughout the Title V permit.
6. Attachment 1 (Appendix A of the permit R13-3186D) – was not included in the underlying permit R13-3186E, but condition 8.3.1 (Title V condition 4.4.1) still references an example form to be used for visible emission checks, therefore Attachment 1 was left in the Title V permit, but reference to Appendix A of the permit R13-3186D was deleted.

### **Non-Applicability Determinations**

1. The following requirements have been determined not to be applicable to the subject facility due to the following:
  - (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 therefore is 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). There were no new PSEU units added during Significant Modification SM01 and the renewal, since new heaters and new emergency engine don’t use control devices (not subject per 40 C.F.R. §64.2(a)(2)).

### **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 15, 2024

Ending Date: November 14, 2024

### **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  
304/926-0499 ext. 41250  
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.