

West Virginia Department of Environmental Protection
Division of Air Quality

Joe Manchin, III
Governor

Randy C. Huffman
Cabinet Secretary



Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
Alliant Techsystems, Inc.
ATK Tactical Propulsion and Controls / Allegany Ballistics Laboratory
R30-05700011-2009 (Part 2 of 3)

John A. Benedict
Director

Issued: May 20, 2009 • Effective: June 3, 2009
Expiration: May 20, 2014 • Renewal Application Due: November 20, 2013

Permit Number: **R30-05700011-2009 (Part 2 of 3)**
Permittee: **Alliant Techsystems, Inc.**
Facility Name: **ATK Tactical Propulsion and Controls / Allegany Ballistics Laboratory**
Permittee Mailing Address: **210 State Route 956, Rocket Center, WV 26726-3548**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Rocket Center, Mineral County, West Virginia
Facility Mailing Address:	210 State Route 956, Rocket Center, WV 26726-3548
Telephone Number:	(304) 726 - 5506
Type of Business Entity:	Corporation
Facility Description:	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
SIC Codes:	Primary - 3764, Secondary – 3089
UTM Coordinates:	686.47 km Easting • 4381.25 km Northing • Zone 17

Permit Writer: Natalya Chertkovsky-Veselova

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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ATTACHMENTS:

ATTACHMENT 1 - Attachment 1 of the Permit R13-2579A - Certification of Data Accuracy Statement

ATTACHMENT 2 - Attachment N of the Permit R13-2680 Application – Air Emission Estimates – ATK CVD Process

1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Source ID	Emission Point ID	Equipment Description and ID	Year Installed / Modified	Design Capacity	Control Device Description and ID
Composite Case Manufacturing – Group 00B					
B-2S	B-3E	Laboratory Exhaust Hood (Bond Room)-368	1995	Variable	
B-3S	B-2E (151e)	Laboratory Exhaust Hood (Bond Room)- 368	1995	Variable	
B-4S	B-3E (149e)	Binks Spray Booth #1-368	1995	Variable	B-1C
B-5S	B-4E (150e)	Binks Spray Booth #2-368	1995	Variable	B-2C
B-49S	B-4E	Laboratory Exhaust Hood-368	1999	Variable	
B-11S	B-5E	Tafco Oven (Javelin Bond Room-Oven C) -368	1999	Variable	
B-14S	B-7E	Grieve Drying Oven-368	1993	550°F Max	
B-15S	B-7E	Penn Drying Oven-368	1993	Variable	
B-16S	B-7E	Laboratory Exhaust Hood-368	1993	Variable	
B-25S	B-7E	Tafco Large Electric Curing Oven (Javelin Bond Room, Walk-Through Oven A) -368	1993	Variable	
B-26S	B-8E	Tafco Oven (Javelin Bond Room, Oven B) -368	1993	Variable	
B-27S	B-9E	Gas Curing Oven-368	1993	0.8 Mkw	
B-28S	B-10E	Gas Curing Oven-368	1993	0.8 Mkw	
B-29S	B-11E	Gas Curing Oven-368	1993	0.8 Mkw	
B-30S	B-12E	Gas Curing Oven-368	1993	0.8 Mkw	
B-31S	B-13E	Large Autoclave-368	1993	600°F/300psi	
B-32S	B-14E	Small Autoclave-368	1993	400°F/250 psi	
B-36S	B-15E	Penn Storage Freezer-368-MS	1996	Variable	
B-37S	B-16E	Meuser Lathe-368-MS	1996	Variable	
B-38S	B-16E	LeBlond Lathe-368-MS	1996	Variable	B-5C
B-39S	B-16E	LeBlond/Makino Lathe-368-MS	1996	Variable	B-5C
B-40S	B-16E	Vacuum System-368-MS	1996	Variable	B-5C
B-41S	B-19E	Mori Seiki Lathe-368-MS	1996	Variable	B-6C
B-42S	B-19E	Dainichi F-35M Lathe-368-MS	1996	Variable	B-6C

Source ID	Emission Point ID	Equipment Description and ID	Year Installed / Modified	Design Capacity	Control Device Description and ID
B-44S	B-20E	Grieve-Hendry Small Electric Oven-368-MS	1997	10 kw	
B-53S	B-21E	Masco Gantry Mill-368-MS	2000	Variable	B-7C
B-55S	B-16E	Bridgeport Milling Machine-368-MS	2000	Variable	
B-56S	B-22E	Young & Bertke Electric Oven-368-MS	2000	550°F	
B-60S	B-16E	Small Table Grinder-368-MS	2000	Variable	
B-61S	B-16E	Small Table Grinder-368-MS	2000	Variable	
B-62S	B-16E	Small Table Sander-368-MS	2000	Variable	
B-48S	B-17E	Autoclave-256-FP	1997	Variable	
B-65S	B-23E	Grieve Electric Oven-167-F22	2000	Variable	
B-68S	B-24E	8-Ply Laminator-368ANN	1999	Variable	
B-70S	B-25E	Minster Robotic Press-368ANN	1999	Variable	B-8C
B-71S	B-25E	Minster Robotic Press-368ANN	1999	Variable	B-8C
B-72S	B-25E	Minster Robotic Press-368ANN	1999	Variable	B-8C
B-95S	B-27E	Pittsburgh Spray Booth-368ANN	2000	Variable	B-11C
B-96S	B-28E	Gruenberg Oven-368ANN	1999	500°F	
B-97S	B-29E	Grieve Walk-In Oven-368ANN	1999	80 kw	
B-98S	B-30E	Steelman Walk-In Oven-368ANN	1999	500°F	
B-99S	B-31E	TBI Booth-368ANN	1999	Variable	B-12C
B-100S	B-32E	CTA Robotic Spray Booth-368ANN	2000	Variable	B-13C
B-101S	B-33E	Sabot Cleaning Sprayer & Dryer-368ANN	2000	Variable	
B-102S	B-34E	Pittsburgh Spray Booth – 368 ANN	2008	Variable	B-14C
Metal Fabrication – Group 00A					
A-1S	A-1E	Apex Broach Machine-167	1996	Variable	
A-109S	NDV	Lindberg/Blue Electric Oven-167	1999	Variable	
A-51S	A-5E	Vacuum Pumps for EB Welder-438	1996	Variable	
A-52S	A-5E	Vacuum Pumps for EB Welder-438	1996	Variable	
A-54S	A-2E or-6E	Hand Grinding/Buffering Station-438	1996	Variable	A-2C

Source ID	Emission Point ID	Equipment Description and ID	Year Installed / Modified	Design Capacity	Control Device Description and ID
A-62S	A-8E	Armil Propane Tempering Oven-438	1996	4 mmBTU/hr	
A-63S	A-9E	Modern Propane Tempering Oven-438	1996	3 mmBTU/hr	
A-58S	A-7E	Large Abrasive Blast Systems Grit Blaster (Rm. 119) -438	1996	30 lb/hr	A-5C
A-68S	A-10E	Magnaflux Magnetic Particle Machine-438-R122	1996	Variable	
A-70S	A-12E	Work Table with Exhaust Hood-438-R122	2000	Variable	
A-73S	A-14E	Wisconsin Electric Through-Wall Oven-438-R121	1996	Variable	
A-74S	A-14E	Wisconsin Electric Oven-438-R121	1996	Variable	
A-75S	A-14E	Young & Bertke Electric Oven-438-R121	1996	Variable	
A-77S	A-15E	TIG Welding Machine-438-R121		Variable	
A-78S	A-15E	TIG Welding Machine-438-R121	1996	Variable	
A-79S	A-15E	TIG Welding Machine-438-R121	1996	Variable	
A-80S	A-15E	TIG Welding Machine-438-R121	1996	Variable	
Nozzle / Insulator Preparation – Group 00D					
D-1S	D-1E (183e)	Paint Spray Booth #1-421	1996	Variable	D-1C (183c)
D-2S	D-1E (183e)	Paint Spray Booth #2-421	1996	Variable	D-2C
D-3S	D-2E	Lab Exhaust Hood-421	1996	Variable	
D-6S	D-3E	Blu-Surf Propane-Fired Curing Oven-421	1996	1.5 mmBTU/hr	
D-7S	D-4E	Blu-Surf Propane-Fired Curing Oven-421	1996	0.5 mmBTU/hr	
D-8S	D-5E	Blu-Surf Propane-Fired Curing Oven-421	1996	0.5 mmBTU/h	
D-10S	D-7E	Despatch Electric Curing Oven-421	1996	Variable	
D-23S	D-8E	Rubber Mixing Machine-819	1996	2.5 gal	Vents inside building
D-24S	D-8E	Roll mill-819	1996	Variable	Vents inside building
D-29S	D-9E	Primer Station-421-CBA	2000	Variable	D-5C

Source ID	Emission Point ID	Equipment Description and ID	Year Installed / Modified	Design Capacity	Control Device Description and ID
D-31S	D-10E	Desma Rubber Molding Machine-421-CBA	2000	Variable	
D-32S	D-11E	Water Jet Trimmer-421-CBA	2000	Variable	
D-33S	D-12E	Water Jet Trimmer-421-CBA	2000	Variable	
D-35S	D-13E	Grieve Oven-421-SAB	2000	Variable	
D-36S	D-14E	Grieve Oven-421-SAB	2000	Variable	
D-37S	D-15E	Arburgh Injection Molding Machine-421-SAB	2000	Variable	
D-4S	OS	Lab Exhaust Hood-421-SAB	1996	Variable	
D-41S	D-16E	Sabot/Obturator Cleaning Hood	2003	Variable	
D-42S	D-17E	Sabot Priming Booth	2003	Variable	D-7C
D-46S	D-19E	J RTV Curing Oven	2003	Variable	
D-49S	D-20E	Grieve Electric Oven-421	1999	Variable	
ACP Composite Structures Manufacturing Area - Group 00W					
W-1S	NDV (W-1E)	Product Machining Station	2008	Variable	W-1C (Baghouse W-1E)
W-2S	NDV (W-1E)	Product Machining Station	2008	Variable	W-1C (Baghouse W-1E)
W-3S	NDV (W-1E)	Scrap Cutdown Station	2008	Variable	W-1C (Baghouse W-1E)
W-4S	NDV (W-1E)	Mechanical Test Chamber	2008	Variable	W-1C (Baghouse W-1E)
W-5S	W-2E	Acid Digest Station	2008		
W-6S	NDV (Fugitive)	Ultrasonic Cleaning Stations	2008	Variable	
W-7S	W-3E	Solvent Recovery System	2008		W-2C (Condenser)*
W-8S	W-4E	Mandrel Preparation Station	2008	Variable	
W-9S	W-5E	Mandrel Preparation Station	2008	Variable	
W-10S	W-6E (Fugitive)	Product Cleaning Station	2008	Variable	
Medium Caliber Ammunition Area - Group 00V					
V-1S	V-1E	502 GAU 8 Primer Coating Line - 376A	2004	Variable	V-1C

Source ID	Emission Point ID	Equipment Description and ID	Year Installed / Modified	Design Capacity	Control Device Description and ID
	V-2E	502 GAU 8 Topcoat Coating Line - 376A	2004	Variable	V-2C
	V-3E	502 GAU 8 Coating Line Oven - 376A	2004	Variable	
V-2S	V-4E	104 GAU 8 Coating Line - 376A	2004	Variable	V-3C
V-3S	V-5E	104 Rework Coating Line - 376A	2004	Variable	V-5C
V-6S	V-8E, V-9E	Fuze Line Assembly (FMU151/M758) - 376A	2004	Variable	
V-7S	V-8E, V-9E	Fuze Line Assembly (FMU154/M759) - 376A	2004	Variable	
Chemical Vapor Deposition Reactor - Group 00X (Bldg 385)					
CVD-1S	CVD-1E	Chemical Vapor Deposition Reactor	2008	5,000 m ² /yr of fabric per year	CVD-1C, CVD-2C
CVD-2S	CVD-1E	Ammonia Gas Cabinet	2008		CVD-1C
CVD-3S	CVD-1E	Boron Trichloride Gas Cabinet	2008		CVD-2C
CVD-4S	CVD-1E	Silicon Tetrachloride Gas Cabinet	2008		CVD-2C
CVD-5S	CVD-1E	Wet Bench	2008	Variable	CVD-2C
CVD-6S	CVD-2E	Fabric Heat Treat Oven	2008		
CVD-7S	NDV	Resin Coating Bench	2008		
CVD-8S	NDV	AGFM Ultrasonic Cutter	2008		
CVD-9S	NDV	Platen Press	2008		
CVD-10S	CVD-3E	Pyrolysis Furnace	2008		
CVD-11S	CVD-4E	Despatch Oven (TFD3-10-1E)	2008		
CVD-12S	NDV	Water Jet Trimmer	2008		
CVD-13S	NDV	Mazak Mill	2008		
CVD-14S	NDV	Slurry Mixing/Application Area	2008	Variable	
CVD-15S	CVD-5E	Despatch Oven (LBB2-18-1)	2008		
CVD-16S	NDV	Kiln	2008		
Wg-5S	Wg-1E	Auto Clave	2008	N/A	
Wg-6S	Wg-2E	Auto Clave	2008	N/A	

Source ID	Emission Point ID	Equipment Description and ID	Year Installed / Modified	Design Capacity	Control Device Description and ID
Control Devices					
B-1C	B-3E	Fabric filter for spray booth	1995	90-95% (PM)	
B-2C	B-4E	Fabric filter for spray booth	1995	90-95% (PM)	
B-5C	B-16E	Cyclone dust collector for lathe vacuum	1996	99.9% (PM)	
B-6C	B-19E	Cyclone dust collector for lathes	1996	99.9% (PM)	
B-7C	B-21E	Cyclone dust collector for gantry mill	2000	99.9% (PM)	
B-8C	B-25E	Cyclone dust collector for Minster presses	1999	99.9% (PM)	
B-11C	B-27E	Fabric filter for spray booth	2000	90-95% (PM)	
B-12C	B-31E	Fabric filter for spray booth	1999	90-95% (PM)	
B-13C	B-32E	Fabric filter for spray booth	2000	90-95% (PM)	
B-14C	B-34E	Fabric filter for spray booth	2008	90-95% (PM)	
A-2C	A-2E or-6E	Cyclone Dust Collector	1996	Variable	
A-5C	A-7E	Cyclone Dust Collector for Grit Blaster	1996		
D-1C (183c)	D-1E	Fabric filter for paint booth	1996	90-95% (PM)	
D-2C	D-1E	Fabric filter for paint booth	1996	90-95% (PM)	
D-5C	D-9E	Fabric filter for primer station	2000	90-95% (PM)	
D-7C	D-17E	Fabric filter for primer booth	2003	90-95% (PM)	
V-1C	V-1E	Fabric Filter	2004	90% (PM)	
V-2C	V-2E	Fabric Filter	2004	90% (PM)	
V-3C	V-4E	Fabric Filter	2004	90% (PM)	
V-5C	V-5E	Fabric Filter	2004	90% (PM)	
W-1C	NDV	Cyclone/Baghouse Dust Collector	2008	99.9% (PM)	
W-2C*	W-3E	Condenser	2008	90% (VOC)	
CVD-1C	CVD-1E	Scrubber w/ base (NaOH) injection	2008	Air flow 400 CFM	
CVD-2C	CVD-1E	Scrubber w/ acid (H ₂ SO ₄) injection	2008	Air flow 1600 CFM	

*Vents Inside

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-1797A	01/30/2002
R13-2037A	07/26/2001
R13-2579A	10/17/2005
R13-2680	01/04/2007
R13-2754	08/12/2008

2.0 General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM₁₀	Particulate Matter less than 10µm in diameter
C.F.R. or CFR	Code of Federal Regulations	pph	Pounds per Hour
CO	Carbon Monoxide	ppm	Parts per Million
C.S.R. or CSR	Codes of State Rules	PSD	Prevention of Significant Deterioration
DAQ	Division of Air Quality	psi	Pounds per Square Inch
DEP	Department of Environmental Protection	SIC	Standard Industrial Classification
FOIA	Freedom of Information Act	SIP	State Implementation Plan
HAP	Hazardous Air Pollutant	SO₂	Sulfur Dioxide
HON	Hazardous Organic NESHAP	TAP	Toxic Air Pollutant
HP	Horsepower	TPY	Tons per Year
lbs/hr or lb/hr	Pounds per Hour	TRS	Total Reduced Sulfur
LDAR	Leak Detection and Repair	TSP	Total Suspended Particulate
m	Thousand	USEPA	United States Environmental Protection Agency
MACT	Maximum Achievable Control Technology	UTM	Universal Transverse Mercator
mm	Million	VEE	Visual Emissions Evaluation
mmBtu/hr	Million British Thermal Units per Hour	VOC	Volatile Organic Compounds
mmft³/hr or mmcf/hr	Million Cubic Feet Burned per Hour		
NA or N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
- a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
 - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
 - c. The change shall not qualify for the permit shield.
 - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
 - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically

identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1. [45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible. [45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them. [40 C.F.R. §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public. [45CSR§4-3.1 and 45CSR13, R13-2680, 4.1.10. State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11. [45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality. [W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.
- [40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

- 3.1.9. The permitted facility (Source ID B-4S, B-5S, D-1S, D-2S, D-42S) shall comply with all applicable standard provisions of 40CFR63 Subpart GG - National Emission Standards for Aerospace Manufacturing and Rework Facilities, provided, however, that compliance with any more stringent limitations set forth under Requirements of Sections 4 and 5 of this Permit is demonstrated:

§ 63.744 Standards: Cleaning operations.

(a) Housekeeping measures. Each owner or operator of a new or existing cleaning operation subject to this subpart shall comply with the requirements in these paragraphs unless the cleaning solvent used is identified in Table 1 of this section or contains HAP and VOC below the de minimis levels specified in § 63.741(f).

(1) Place cleaning solvent-laden cloth, paper, or any other absorbent applicators used for cleaning in bags or other closed containers upon completing their use. Ensure that these bags and containers are kept closed at all times except when depositing or removing these materials from the container. Use bags and containers of such design so as to contain the vapors of the cleaning solvent. Cotton-tipped swabs used for very small cleaning operations are exempt from this requirement.

(2) Store fresh and spent cleaning solvents, except semi-aqueous solvent cleaners, used in aerospace cleaning operations in closed containers.

(3) Conduct the handling and transfer of cleaning solvents to or from enclosed systems, vats, waste containers, and other cleaning operation equipment that hold or store fresh or spent cleaning solvents in such a manner that minimizes spills.

(b) Hand-wipe cleaning. Each owner or operator of a new or existing hand-wipe cleaning operation (excluding cleaning of spray gun equipment performed in accordance with paragraph (c) of this section) subject to this subpart shall use cleaning solvents that meet one of the requirements specified in paragraphs (b)(1), (b)(2), and (b)(3) of this section. Cleaning solvent solutions that contain HAP and VOC below the de minimis levels specified in § 63.741(f) are exempt from the requirements in paragraphs (b)(1), (b)(2), and (b)(3) of this section.

(1) Meet one of the composition requirements in Table 1 of this section;

(2) Have a composite vapor pressure of 45 mm Hg (24.1 in. H₂O) or less at 20 °C (68 °F); or

(3) Demonstrate that the volume of hand-wipe solvents used in cleaning operations has been reduced by at least 60% from a baseline adjusted for production. The baseline shall be established as part of an approved alternative plan administered by the State. Demonstrate that the volume of hand-wipe cleaning solvents used in cleaning operations has been reduced by at least 60 percent from a baseline adjusted for production. The baseline shall be calculated using data from 1996 and 1997, or as otherwise agreed upon by the Administrator or delegated State Authority. The baseline shall be approved by the Administrator or delegated State Authority and shall be included as part of the facility's title V or part 70 permit.

(c) Spray gun cleaning. Each owner or operator of a new or existing spray gun cleaning operation subject to this subpart in which spray guns are used for the application of coatings or any other materials that require the spray guns to be cleaned shall use one or more of the techniques, or their equivalent, specified in paragraphs

(c)(1) through (c)(4) of this section. Spray gun cleaning operations using cleaning solvent solutions that contain HAP and VOC below the de minimis levels specified in § 63.741(f) are exempt from the requirements in paragraphs (c)(1) through (c)(4) of this section.

- (1) (i) Enclosed system. Clean the spray gun in an enclosed system that is closed at all times except when inserting or removing the spray gun. Cleaning shall consist of forcing solvent through the gun.
- (ii) If leaks are found during the monthly inspection required in § 63.751(a), repairs shall be made as soon as practicable, but no later than 15 days after the leak was found. If the leak is not repaired by the 15th day after detection, the cleaning solvent shall be removed, and the enclosed cleaner shall be shut down until the leak is repaired or its use is permanently discontinued.
- (2) Nonatomized cleaning. Clean the spray gun by placing cleaning solvent in the pressure pot and forcing it through the gun with the atomizing cap in place. No atomizing air is to be used. Direct the cleaning solvent from the spray gun into a vat, drum, or other waste container that is closed when not in use.
- (3) Disassembled spray gun cleaning. Disassemble the spray gun and clean the components by hand in a vat, which shall remain closed at all times except when in use. Alternatively, soak the components in a vat, which shall remain closed during the soaking period and when not inserting or removing components.
- (4) Atomizing cleaning. Clean the spray gun by forcing the cleaning solvent through the gun and direct the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions.
- (5) Cleaning of the nozzle tips of automated spray equipment systems, except for robotic systems that can be programmed to spray into a closed container, shall be exempt from the requirements of paragraph (c) of this section.
- (e) Exempt cleaning operations. The following cleaning operations are exempt from the requirements of paragraph (b) of this section:
 - (1) Cleaning during the manufacture, assembly, installation, maintenance, or testing of components of breathing oxygen systems that are exposed to the breathing oxygen;
 - (2) Cleaning during the manufacture, assembly, installation, maintenance, or testing of parts, subassemblies, or assemblies that are exposed to strong oxidizers or reducers (e.g., nitrogen tetroxide, liquid oxygen, or hydrazine);
 - (3) Cleaning and surface activation prior to adhesive bonding;
 - (4) Cleaning of electronic parts and assemblies containing electronic parts;
 - (5) Cleaning of aircraft and ground support equipment fluid systems that are exposed to the fluid, including air-to-air heat exchangers and hydraulic fluid systems;
 - (6) Cleaning of fuel cells, fuel tanks, and confined spaces;
 - (7) Surface cleaning of solar cells, coated optics, and thermal control surfaces;

- (8) Cleaning during fabrication, assembly, installation, and maintenance of upholstery, curtains, carpet, and other textile materials used in the interior of the aircraft;
- (9) Cleaning of metallic and nonmetallic materials used in honeycomb cores during the manufacture or maintenance of these cores, and cleaning of the completed cores used in the manufacture of aerospace vehicles or components;
- (10) Cleaning of aircraft transparencies, polycarbonate, or glass substrates;
- (11) Cleaning and cleaning solvent usage associated with research and development, quality control, and laboratory testing;
- (12) Cleaning operations, using nonflammable liquids, conducted within five feet of energized electrical systems. Energized electrical systems means any AC or DC electrical circuit on an assembled aircraft once electrical power is connected, including interior passenger and cargo areas, wheel wells and tail sections; and
- (13) Cleaning operations identified as essential uses under the Montreal Protocol for which the Administrator has allocated essential use allowances or exemptions in 40 CFR 82.4.

Table 1 Composition Requirements for Approved Cleaning Solvents

Cleaning solvent type	Composition requirements
Aqueous.....	Cleaning solvents in which water is the primary ingredient (>=80 percent of must be water). Detergents, surfactants, and bioenzyme mixtures and nutrients may be combined with the water along with a variety of additives, such as organic solvents (e.g., high boiling point alcohols), builders, inhibitors, emulsifiers, pH buffers, and antifoaming agents. Aqueous solutions must have a flash point greater than 93 °C (200° F) (as reported by the manufacturer), and the solution must be miscible with water.
Hydrocarbon-based.....	Cleaners that are composed of photochemically reactive hydrocarbons and/or oxygenated hydrocarbons and have a maximum vapor pressure of 7 mm Hg at 20 °C (3.75 in. H ₂ O and 68 °F). These cleaners also contain no HAP.

§ 63.748 Standards: Handling and storage of waste.

- (a) Except as provided in § 63.741(e), the owner or operator of each facility subject to this subpart that produces a waste that contains HAP shall conduct the handling and transfer of the waste to or from containers, tanks, vats, vessels, and piping systems in such a manner that minimizes spills.

[45CSR34, 40 C.F.R. 63, Subpart GG]

3.1.10. The pertinent sections of 45CSR7 applicable to this facility include, but are not limited to, the following:

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.

[45CSR§7-3.1. and 45CSR13, R13-2680, 4.1.11.]

The provisions of subsection 45CSR§7- 3.1 shall not apply to smoke and/or particulate matter emitted

from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

[45CSR§7-3.2.]

No person shall cause, suffer, allow or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to 45CSR§7- 5.1 is required to have a full enclosure and be equipped with a particulate matter control device.

[45CSR§7-3.7.]

No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of 45CSR7.

[45CSR§7-4.1.]

Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

[45CSR§7-4.12.]

No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.

[45CSR§7-5.1.]

The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment.

[45CSR§7-5.2.]

At such reasonable times as the Director may designate, the operator of any manufacturing process source operation may be required to conduct or have conducted stack tests to determine the particulate matter loading in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or his duly authorized representative, may at his option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling connections and sampling ports to be located in such manner as the Director may require, power for test equipment, and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices.

[45CSR§7-8.1.]

The Director, or his duly authorized representative, may conduct such other tests as he or she may deem necessary to evaluate air pollution emissions.

[45CSR§7-8.2.]

[45CSR13, R13-2037, B.5. and R13-1797, B.6 and R13-2579, B.2.]

3.1.11. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

§45-13-6.1

At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Director thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Director may specify shall be conducted to determine compliance.

[45CSR13, R13-2037, B.6.and R13-1797, B.7, and R13-2579, B.6.]

3.2. Monitoring Requirements

- 3.2.1. Compliance with Section 3 of 45CSR7 (Requirement 3.1.10 of this Permit) shall be determined by conducting visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for all the Emission Points subject to 45CSR7 (A-7E, B-16E, B-19E, B-21E, B-25E) and units emitting directly into the open air from points other than stack outlet (including visible fugitive dust emissions that leave the plant site boundaries).

Visual emission observations shall be conducted weekly during periods of normal facility operation to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22

If sources of visible emissions are identified, the permittee shall conduct an Opacity Evaluation as outlined in 45CSR§7A-2.1.a,b, within 24 hour period unless the permittee can demonstrate a valid reason that the time frame should be extended. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed.

Anytime when not in compliance with the opacity limit per 45CSR§7-3.1 for any emission point, reporting as per Requirement 3.5.11 shall be initiated, and for this emission point, Method 22 checks shall revert to a weekly frequency for a minimum of 4 consecutive weeks. If in compliance, then monthly Method 22 checks shall be conducted.

Compliance with this Requirement will assure compliance with requirement 3.3.4.f.

[45CSR§30-5.1.c.]

- 3.2.2. Compliance with Section 3 of 45CSR7 (Requirement 3.1.10 of this Permit) for paint booths and related equipment (Emission Points B-3E, B-4E, B-32E, D-1E, D-9E, D-17E, V-1E, V-2E, V-4E, V-5E) shall be determined by conducting fabric filter checks prior to each use of the equipment. These checks shall include review to ensure filters are properly fitted to the unit, no holes exist, and the filters are not overloaded. Any changes made to filters during the checks or filter replacements shall be recorded.

[45CSR§30-5.1.c.]

- 3.2.3. Compliance with Section 3 of 45CSR7 (Requirement 3.1.10 of this Permit) for Emission Points A-2E and A-6E shall be determined by conducting a pre-operation check of the filters prior to each use of the equipment, and conduct preventive maintenance on the units at least quarterly to ensure that filters are cleaned and working properly.

[45CSR§30-5.1.c.]

- 3.2.4. The permitted facility (Source ID B-4S, B-5S, D-1S, D-2S, D-42S) shall comply with all the applicable standard provisions of the 40CFR63 Subpart GG National Emission Standards for Aerospace Manufacturing and Rework Facilities, provided, however, that compliance with any more stringent limitations set forth under Requirements of Sections 4.0. through 7.0. of this Permit, is demonstrated:

§ 63.751 Monitoring requirements.

(a) *Enclosed spray gun cleaners.* Each owner or operator using an enclosed spray gun cleaner under § 63.744(c)(1) (Section 3.1.9. of this Permit) shall visually inspect the seals and all other potential sources of leaks associated with each enclosed gun spray cleaner system at least once per month. Each inspection shall occur while the system is in operation.

[45CSR34, 40 C.F.R. 63, Subpart GG and 45CSR13, R13-2037, B.7.]

3.3. Testing Requirements

3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(15) and 45CSR13, R13-2037, B.9.; R13-1797, B.9., R13-2680, 3.3.1.; and R13-2754, 3.3.1.]

3.3.2. A test protocol (as per Requirement 3.3.1.c.) shall include detailing on the proposed test methods, the date and the time the proposed testing is to take place, as well as identifying the sampling locations and other relevant information.

[45CSR13, R13-2037, B.9. and R13-1797, B.9]

- 3.3.3. Test results shall be submitted to the Secretary no more than sixty (60) days after the date the testing takes place.

[45CSR13, B.9.; R13-2037, B.9.; R13-1797, B.9]

- 3.3.4. Tests that are required by the Director to determine compliance with the emission limitations set forth in this permit shall be conducted in accordance with the methods as set forth below. The Director may require a different test method or approve an alternative method in light of any new technology advancements that may occur. Compliance testing shall be conducted at 100% of the peak load unless otherwise specified by the Director.

- a. Tests to determine compliance with PM emission limits shall be conducted in accordance with Method 5, 5A, 5B, 5C, 5D, 5E, 5F, 5G, or 5H as set forth in 40 CFR 60, Appendix A.
- b. Tests to determine compliance with SO₂ emission limits shall be conducted in accordance with Method 6, 6A, 6B, or 6C as set forth in 40 CFR 60, Appendix A.
- c. Tests to determine compliance with CO emission limits shall be conducted in accordance with Method 10, 10A, or 10B as set forth in 40 CFR 60, Appendix A.
- d. Tests to determine compliance with NO_x emission limits shall be conducted in accordance with Method 7, 7A, 7B, 7C, 7D, or 7E as set forth in 40 CFR 60, Appendix A.
- e. Tests to determine compliance with VOC emission limits shall be conducted in accordance with Method 25, or 25A as set forth in 40 CFR 60, Appendix A.
- f. Tests to determine compliance with Opacity of emissions shall be conducted in accordance with Method 9 as set forth in 40 CFR 60, Appendix A.

[45CSR13, R13-2037, B.8. and R13-1797, B.8]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A., 45CSR13, R13-2680, 4.4.1. and R13-2754, 4.4.1.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B., 45CSR13, R13-2680, 3.4.1. and R13-2754, 3.4.1.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only, 45CSR13, R13-2680, 3.4.2. and R13-2754, 3.4.2.]

3.4.4. A record of each visible emission observation and opacity evaluation per Requirement 3.2.1., and also of monitoring required under conditions 3.2.2. and 3.2.3., shall be maintained on site and shall be made available to the Director or his/her duly authorized representative upon request. Said records shall include the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR§30-5.1.c.]

3.4.5. The permitted facility (as indicated in Requirement 3.1.9) shall comply with all the applicable recordkeeping provisions of the 40CFR63 Subpart GG National Emission Standards for Aerospace Manufacturing and Rework Facilities, provided, however, that compliance with any more stringent limitations set forth under Requirements of Sections 4.0. and 5.0. of this Permit, is demonstrated:

§ 63.752 Recordkeeping requirements.

(b) Cleaning operation. Each owner or operator of a new or existing cleaning operation subject to this subpart shall record the information specified in paragraphs (b)(1) through (b)(5) of this section, as appropriate.

(1) The name, vapor pressure, and documentation showing the organic HAP constituents of each cleaning solvent used for affected cleaning operations at the facility.

(2) For each cleaning solvent used in hand-wipe cleaning operations that complies with the composition requirements specified in § 63.744(b)(1) (Section 3.1.9 of this Permit) or for semi-aqueous cleaning solvents used for flush cleaning operations:

(i) The name of each cleaning solvent used;

(ii) All data and calculations that demonstrate that the cleaning solvent complies with one of the composition requirements; and

(iii) Annual records of the volume of each solvent used, as determined from facility purchase records or usage records.

(3) For each cleaning solvent used in hand-wipe cleaning operations that does not comply with the composition requirements in § 63.744(b)(1) (Section 3.1.9 of this Permit), but does comply with the vapor pressure requirement in § 63.744(b)(2) (Section 3.1.9 of this Permit):

(i) The name of each cleaning solvent used;

- (ii) The composite vapor pressure of each cleaning solvent used;
 - (iii) All vapor pressure test results, if appropriate, data, and calculations used to determine the composite vapor pressure of each cleaning solvent; and
 - (iv) The amount (in gallons) of each cleaning solvent used each month at each operation.
- (4) For each cleaning solvent used for the exempt hand-wipe cleaning operations specified in § 63.744(e)(Section 3.1.9 of this Permit), that does not conform to the vapor pressure or composition requirements of § 63.744(b) (Section 3.1.9 of this Permit):
- (i) The identity and amount (in gallons) of each cleaning solvent used each month at each operation; and
 - (ii) A list of the processes set forth in § 63.744(e) (Section 3.1.9 of this Permit), to which the cleaning operation applies.
- (5) A record of all leaks from enclosed spray gun cleaners identified pursuant to § 63.751(a) (Section 3.1.9 of this Permit) that includes for each leak found:
- (i) Source identification;
 - (ii) Date leak was discovered; and
 - (iii) Date leak was repaired.

[45CSR34, 40 C.F.R. 63, Subpart GG and 45CSR13, R13-2037, B.7.]

3.4.6. To demonstrate compliance with Specialty Coatings definition in order to maintain exemption from the requirements of Subpart GG 40CFR63.745 (as per 3.7.2(b)), records shall be maintained concerning materials used for all the paint applications at the facility. These records shall include the types and amounts of materials sprayed each month, VOC and HAP contents, and monthly hours of operation.
[45CSR§30-5.1.c.]

3.4.7. To demonstrate compliance with the Requirement 3.1.10 (45CSR§7-5.1.) the company shall keep records of maintenance and operations of fugitive dust control systems for the following Emission Points: B-3E, B-4E, B-16E, B-19E, B-21E, B-25E, B-27E, B-31E, B-32E, B-34E, A-2E, A-6E, A-7E, D-1E, D-8E, D-9E, D-17E, W-3E, CVD-1E, VI (Control Device ID W-2C).
[45CSR§30-5.1.c.]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

[45CSR§30-5.1.c.3.E.]

- 3.5.3. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Phone: 304/926-0475
FAX: 304/926-0478

If to the US EPA:

Associate Director
Office of Enforcement and Permits Review
(3AP12)
U. S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.
[45CSR§30-5.3.e.]
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.
[45CSR§30-5.1.c.3.A.]
- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.
- 3.5.8. **Deviations.**
- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

- b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

- 3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

- 3.5.10. The permitted facility (Source ID B-4S, B-5S, D-1S, D-2S, D-42S) shall comply with all applicable reporting provisions of 40CFR63 Subpart GG - National Emission Standards for Aerospace Manufacturing and Rework Facilities, provided, however, that compliance with any more stringent limitations set forth under Requirements of Sections 4 and 5 of this Permit, is demonstrated:

§ 63.753 Reporting requirements.

(b) Cleaning operation. Each owner or operator of a cleaning operation subject to this subpart shall submit the following information:

- (1) Semiannual reports occurring every 6 months from the date of the notification of compliance status that identify:
 - (i) Any instance where a noncompliant cleaning solvent is used for a non-exempt hand-wipe cleaning operation;
 - (ii) A list of any new cleaning solvents used for hand-wipe cleaning in the previous 6 months and, as appropriate, their composite vapor pressure or notification that they comply with the composition requirements specified in § 63.744(b)(1) (Section 3.1.9 of this Permit);
 - (iii) Any instance where a noncompliant spray gun cleaning method is used;
 - (iv) Any instance where a leaking enclosed spray gun cleaner remains unrepaired and in use for more than 15 days; and
 - (v) If the operations have been in compliance for the semiannual period, a statement that the cleaning operations have been in compliance with the applicable standards. Sources shall also submit a statement of compliance signed by a responsible company official certifying that the

facility is in compliance with all applicable requirements.

[45CSR34, 40 C.F.R. 63, Subpart GG]

- 3.5.11. Upon observing any visible emissions during an Opacity Evaluation as per Requirement 3.2.1. in excess of twenty percent (20%) opacity (but less than forty percent (40%) opacity) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, or upon observing any visible emissions in excess of forty percent (40%) opacity, the Company shall submit a written report (including day and time of the observation, observation results, and corrective actions taken (if any)), certified by a responsible official, to the Director of the Division of Air Quality within ten (10) days after taking said reading.

[45CSR§30-5.1.c.]

3.6. Compliance Plan

- 3.6.1. None.

3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

- (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) 40CFR63, Subpart GG, Section 63.745 – National Emission Standards for Aerospace Manufacturing Operations. The painting operations at this facility are exempted from Section 63.745 Primer and Topcoat operations because Specialty Coatings (definition per 63.742) are used for all painting operations. Specialty Coating applications are covered by Control Technology Guidelines (CTG) EPA-453/R-97-004 enacted under 45CSR21 for RACT control of VOCs. However, the facility is not located in an area that is subject to 45CSR21, and is therefore, not subject to any CTG guidelines for Specialty Coating application.
- (c) 40CFR63, 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.
- (d) 40CFR63, Subpart GGGGG – National Emission Standards for Site Remediation. The facility currently has one site under remediation for groundwater contamination. This site is a Superfund site and is thus exempt from the MACT requirements. The facility also has a second site, which will begin remediation as part of a RCRA corrective action program within the next year. This second site would also be exempted since it is being conducted under a RCRA corrective action permit. In addition, neither site would generate emissions of more than 1 megagram per year of HAPs.
- (e) 40CFR63, 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.

- (f) 40CFR63, Subpart Mmmm - Surface Coating of Miscellaneous Metal Parts and Products. The Medium Caliber Ammunition operations (Group 00V) performed at the ATK facility fall within the description of those sources applicable to this subpart. However, per 40CFR63.3881(c)(4)(c), this subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section. Of these cited paragraphs, (4) states that surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States or the National Aeronautics and Space Administration (NASA), or the surface coating of military munitions manufactured by or for the Armed Forces of the United States. Considering the Medium Caliber Ammunition operations (Group 00V) primary purpose is manufacturing munitions for the U.S. Department of Defense, it shall qualify for the exemption and not be applicable to the requirements within this subpart.

4.0 Composite Case Manufacturing Requirements (Plant 1)

4.1. Limitations and Standards

- 4.1.1. Emissions to the atmosphere from each paint spray booth (Sources 149 and 150) and the degreasing and cleaning exhaust hood (Source 151) shall not exceed the following:

AREA	Emission Point ID	VOC Emission Rates		Particulate Matter Emission Rates	
		lb/hr	TPY	lb/hr	TPY
Paint Spray Booth	B-3E (149e)	2	2.76	0.1	0.1
Paint Spray Booth	B-4E (150e)	2	2.76	0.1	0.1
Degreasing Exhaust	B-2E (151e)	2	7.89	-	-

For the purpose of this permit, VOCs shall have the meaning of "any organic compound which participates in atmospheric photochemical reactions", that is, any organic compound other than those the EPA Administration has designated as having negligible photochemical reactivity. Negligible photochemical reactive materials include: methane, ethane, methyl chloroform, methylene chloride, and some freons.
[45CSR13, R13-1797, A.1.]

- 4.1.2. The minimum particulate collection efficiency of the filters used in the spray booth exhaust stack shall be 90%.
[45CSR13, R13-1797, A.2.]
- 4.1.3. Coatings to be utilized shall comply with 45CSR27.

For the purpose of this permit, coatings shall be defined as stains, thinners, solvents, sealers, varnishes, paints, primers, catalysts, acrylics, lacquers, or any substance involved in spray booth operations, cleaning, or maintenance.
[45CSR13, R13-1797, A.3.]

- 4.1.4. For the purpose of determining compliance with Requirement 4.1.3, the permittee will be subject to announced and unannounced compliance and enforcement inspection by the Director or his/her duly authorized representative. If at any time the permittee fails to comply with the limits as set forth in 45CSR27 - Table A, the permittee shall notify the Director of such exceedence and may be required at the Director's request to employ a BAT (Best Available Technology) plan to all chemical processing units emitting toxic air pollutants.
[45CSR13, R13-1797, B.4.]

4.2. Monitoring Requirements

- 4.2.1. None.

4.3. Testing Requirements

- 4.3.1. To determine compliance with the emission limitations as set forth in Requirement 4.1.1. test(s) shall be conducted in accordance with Requirements 3.3.1. through 3.3.4.
[45CSR§30-5.1.c. and 45CSR13, R13-1797, B.2.]

4.4. Recordkeeping Requirements

- 4.4.1. For the purpose of determining compliance with VOC emission limitations set forth in Requirement 4.1.1, the company shall maintain daily, monthly, and yearly records. Compliance with the emission limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of VOCs emitted at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained in a manner similar to Attachments A, B, and C of the Permit R13-1797A, and shall include: a) for Monthly Coating and VOC Report - month, coating usage in gal, VOC emissions in tons, year to date VOC emissions in tons; b) for Monthly Usage Report - coating used, total gallons used, lb/gallon, weight % VOC, Lbs VOC Usage, and Grand Totals for Total Gallons used and lbs VOC Usage; c) for Daily Usage Report - date, coating used, gallons used, lb/gal, weight % VOC, Lbs VOC Usage.
[45CSR13, R13-1797, B.1.]
- 4.4.2. As per Requirement 4.4.1. above, VOC and/or HAP emission calculations shall be performed based on coating usage records and material safety data sheets information, assuming that 100 percent of all VOCs (both non-HAP and HAP) are emitted to the atmosphere.
[45CSR§30-5.1.c.]
- 4.4.3. For the purpose of determining compliance with the minimum efficiency limit as set forth in Requirement 4.1.2, the permittee may be required by the Director or his/her duly authorized representative to provide any information deemed necessary to obtain the particulate collection efficiency of the filters used in the spray booth exhaust stack.
[45CSR13, R13-1797, B.3.]
- 4.4.4. For the purpose of determining compliance with the PM₁₀ limitations set forth in Requirements 4.1.1. (Emission Points B-3E and B-4E, Control Devices B-1C and B-2C) the company shall maintain a filter replacement logsheet for the filter bank. This logsheet shall be maintained on site. Certified copies of the logsheet shall be made available to the Director or his duly-authorized representative upon request.
[45CSR§30-5.1.c.]

4.5. Reporting Requirements

- 4.5.1. None.

4.6. Compliance Plan

- 4.6.1. None.

5.0 Nozzle / Insulator Preparation Requirements (Plant 1)

5.1 Limitations and Standards

- 5.1.1. The emissions, from Emission Point D-1E, to the atmosphere shall not exceed the following emission rates:

Emission Point ID	Pollutant	Emission Rate	
		lb/hr	lb/yr
D-1E	Particulate Matter (PM)	0.5	354.3
	Volatile Organic Compound (VOC)	5.37	11699.6
	Hazardous Air Pollutant (HAP)	2.09	5728.24

[45CSR13, R13-2037, A.3.]

- 5.1.2. Emissions to the air of trichloroethylene from the emission points or sources listed below shall not exceed the following limitations:

Emission Point ID	Pollutant	Emission Rate	
		lb/hr	lb/yr
D-1E	Trichloroethylene	2.09	250

[45CSR§30-12.7.]

- 5.1.3. Control Device D-1C, to be utilized for the purpose of controlling particulate matter emissions from Emission Point D-1E, shall consist of a Research Products Corp. Series 3000 RP Paint Arrestors Filter, or other filter of comparable control efficiency.

[45CSR13, R13-2037, A.4.]

- 5.1.4. For the purpose of determining compliance with Requirement 5.1.3, the permittee will be subject to announced and unannounced compliance and enforcement inspection by the Director or his/her duly authorized representative. If at any time the permittee fails to comply with the conditions as set forth in Requirement 5.1.3., the permittee shall notify the Director or his/her duly authorized representative of such non-compliance and may be subject to civil and/or criminal penalties for each violation.

[45CSR13, R13-2037, B.3.]

5.2 Monitoring Requirements

- 5.2.1. None.

5.3. Testing Requirements

- 5.3.1. To determine compliance with the emission limitations as set forth in Requirement 5.1.1 above test(s) shall be conducted in accordance with Requirements 3.3.1. through 3.3.4.
[45CSR§30-5.1.c. and 45CSR13, R13-2037, B.2.]
- 5.3.2. Upon the Director's request, the Company shall submit to the Director a detailed plan and test protocol for approval of methods to demonstrate compliance with the emission limits set forth in Requirement 5.1.2. The Director reserves the right to require the application of any specific valid test or emissions monitoring methods for the determination of TAP emissions from any source.
[45CSR§30-5.1.c.]

5.4. Recordkeeping Requirements

- 5.4.1. For the purpose of determining compliance with Volatile Organic Compound (VOC), Particulate Matter (PM), and Hazardous Air Pollutant (HAP) emission limitations set forth in Requirement 5.1.1. and 5.1.2., the permittee shall maintain monthly and yearly records. Compliance with the emission limits shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of VOC, PM or HAP emitted at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained in a manner similar to Attachments B, D and F of the Permit R13-2037A, and shall include: a) for Monthly Usage/ VOC Emissions/ PM Emissions Report – for each month record Name of Coating, Amount Used (Gal), Hours of Operations, VOC Content (lbs VOC/Gal), VOC Emissions (lbs and lbs/hr), PM Content (lbs PM/Gal), PM Emissions (lbs and lbs/hr), and Total for VOC Emissions (lbs and lbs/hr) and for PM Emissions (lbs and lbs/hr); b) Annual VOC Emissions/ PM Emissions Report for each year record Month, VOC Emissions (lbs), PM Emissions (lbs), and Total for VOC Emissions (lbs) and PM Emissions (lbs); c) Annual HAP Emission Report record for each year Emissions of VOC HAPs and PM HAPs in lbs/yr and Total HAPs.
[45CSR13, R13-2037, B.1. and 45CSR§30-5.1.c.]
- 5.4.2. As per Requirement 5.4.1., VOC and/or HAP emission calculations shall be performed based on coating usage records and material safety data sheets information, assuming that 100 percent of all VOCs (both non-HAP and HAP) are emitted to the atmosphere
[45CSR§30-5.1.c.]
- 5.4.3. To demonstrate compliance with the Requirement 5.1.2. the permittee shall maintain records of the amounts of trichloroethylene sprayed in the booth D-1S. These records shall be used to determine losses of trichloroethylene. Records shall be maintained on site.
[45CSR§30-5.1.c.]
- 5.4.4. For the purpose of determining compliance with the PM₁₀ limitations set forth in Requirements 5.1.1. (Emission Point D-1E, Control Device D-1C) the company shall maintain a filter replacement logsheet for the filter bank (include Filter Change-Out Date and Comments about Old/New Filters, etc). An example logsheet is given in Attachment 1 of the Permit R13-2246A.
[45CSR§30-5.1.c.]

5.5. Reporting Requirements

- 5.5.1. None.

5.6. Compliance Plan

5.6.1. None.

6.0 Medium Caliber Ammunition Requirements (Plant 1)

6.1 Limitations and Standards

- 6.1.1. The proposed facility shall be comprised of the emission sources, pollution control equipment, and associated emission points listed in the Emission Units Table 1.0 under “Medium Caliber Ammunition Area”.
[45CSR13, R13-2579, A.1.]
- 6.1.2. Coating operations associated with Sources V-1S, V-2S, and V-3S shall be equipped with a fabric filter for the purpose of controlling particulate matter generated as over spray. All filters shall be inspected daily and maintained so to provide a minimum guaranteed control efficiency of 90% for particulate matter.
[45CSR13, R13-2579, A.2.]
- 6.1.3. The 502 GAU 8 Coating Line, V-1S, shall be limited to a maximum production rate of 500 projectiles per hour and 1,560,000 projectiles per year, and a maximum operating schedule of 3,120 hours per year.
[45CSR13, R13-2579, A.3.]
- 6.1.4. The 104 GAU 8 Coating Line, V-2S, shall be limited to a maximum production rate of 750 projectiles per hour and 4,680,000 projectiles per year, and a maximum operating schedule of 6,240 hours per year.
[45CSR13, R13-2579, A.4.]
- 6.1.5. The 104 Rework Coating Line, V-3S, shall be limited to a maximum throughput rate of 100 projectiles per hour and 624,000 projectiles per year, and a maximum operating schedule of 6,240 hours per year.
[45CSR13, R13-2579, A.5.]
- 6.1.6. The FMU151/M758 Fuze Line, V-6S, shall be limited to a maximum fuze assembly rate of 325 per hour and 2,028,000 per year, and a maximum operating schedule of 6,240 hours per year.
[45CSR13, R13-2579, A.6.]
- 6.1.7. The FMU154/M759 Fuze Line, V-7S, shall be limited to a maximum fuze assembly rate of 325 per hour and 2,028,000 per year, and a maximum operating schedule of 6,240 hours per year.
[45CSR13, R13-2579, A.7.]
- 6.1.8. The maximum emissions released from the emission sources [V-1S, V-2S, V-3S, V-6S and V-7S] shall not exceed the emission limits set forth in the following table:

Emission Point	Source	PM10		VOCs		HAPs	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
V-1E, V-2E V-3E	V-1S	0.1	0.08	2.2	3.38	1.34	2.08
V-4E	V-2S	0.1	0.23	3.3	10.15	2.01	6.25
V-5E	V-3S	0.1	0.24	1.3	3.79	0.77	2.38
V-8E	V-6S	0	0.00	0.4	1.22	0.12	0.37
	V-7S	0	0.00	0.5	1.29	0.12	0.38
V-9E	V-6S	0	0.00	0.4	1.04	0.05	0.14

	V-7S	0	0.00	0.4	1.04	0.05	0.14
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[45CSR13, R13-2579, A.8.]

6.1.9. The emissions of HAPs from those sources covered by this permit shall consist of those pollutants listed in the following table:

HAP	CAS Number	HAP	CAS Number
Antimony Compounds	N/A	Chromium Compounds	N/A
Lead Compounds	N/A	Glycol Ethers	N/A
Dioctyl Phthalate	117817	Ethyl Benzene	100414
Formaldehyde	50000	Hexane	11543
Methanol	67561	Methyl Ethyl Ketone	78933
Methyl Isobutyl Ketone	108101	Phenol	108952
Toluene	108883	Xylene	1330207

Use of any surface coating and/or assembly material containing any constituent identified in Section 112(b) of the 1990 Clean Air Act Amendments as a HAP and not listed above shall be in accordance with the following:

- a. The permittee shall notify the Director in writing of the surface coating and/or assembly material to be used and the HAP(s) contained therein within thirty (30) days after the initial use of the surface coating. Additionally, an MSDS sheet for the surface coating or assembly material shall be supplied at this time to the Director.
- b. The use of the surface coating and/or assembly material shall be incorporated into the record keeping requirements contained herein.
- c. The emission rate of the HAP(s) contained within the surface coating and/or assembly material shall not equal or exceed the maximum permitted HAPs emission rate as established in Specific Requirements 6.1.10. of this permit.

For the purposes of this permit, surface coatings and assembly materials shall be defined as a material applied onto, or impregnated into, a substrate for protective, decorative, or functional purposes. Such materials include, but are not limited to, cleaners, thinners, solvents, paints, primers, catalysts, acrylics, lacquers, adhesives, lubricants and temporary protective coatings, or combinations of the above materials as applied.
[45CSR13, R13-2579, A.9.]

6.1.10. The maximum aggregate emission rates of HAPs from the emission sources within the coatings and assembly lines covered by this permit shall not exceed the following:

Source ID	HAPs, lb/hr	HAPs, TPY
V-1S, V-2S, V-3S, V-6S and V-7S	4.46	11.74

Compliance with the annual emission limits shall be determined using rolling yearly totals.

[45CSR13, R13-2579, A.10.]

- 6.1.11. Compliance with all annual limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the amount of materials consumed, processed, and/or shipped at any given time during the previous twelve (12) consecutive calendar months.

[45CSR13, R13-2579, A.11.]

6.2. Monitoring Requirements

- 6.2.1. None.

6.3. Testing Requirements

- 6.3.1. None.

6.4. Recordkeeping Requirements

- 6.4.1. For the purpose of determining compliance with permit requirements set forth by Specific Requirements 6.1.2., and particulate emission limits based on Specific Requirements 6.1.8., the permittee shall maintain records of daily inspections performed on the fabric filter systems (V-1C, V-2C, V-3C, V-4C, and V-5C). All equipment inspections, filter changes, maintenance and repair shall be documented and maintained on-site and made available to the Director or his duly authorized representative upon request. At a time prior to being submitted to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement (Attachment 1 to this Permit).

[45CSR13, R13-2579, B.3.]

- 6.4.2. For the purpose of determining compliance with production limits set forth by Requirements 6.1.3. through 6.1.7., the permittee shall maintain monthly production records identifying the total number of each projectile type processed on the coating lines, V-1S, V-2S, and V-3S, and the total number of fuzes processed on assembly lines V-6S and V-7S. This information shall be maintained on-site and made available to the Director or his duly authorized representative upon request. At a time prior to being submitted to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement (Attachment 1 to this Permit).

[45CSR13, R13-2579, B.4.]

6.5. Reporting Requirements

- 6.5.1. For the purpose of determining compliance with permit limits based on Requirements 6.1.8 and 6.1.9, the permittee shall maintain the name, identification number, and volume of each surface coating and assembly material, as applied and the associated mass of VOCs, HAPs, and solids per volume of each surface coating. Additionally, a monthly summary report shall be completed certifying the average hourly and twelve (12) month rolling total of emission rates for VOCs and HAPs. This information shall be maintained on-site and made available to the Director or his duly authorized representative upon request. At a time prior to being submitted to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement (Attachment 1 to this Permit).

[45CSR13, R13-2579, B.5.]

6.6. Compliance Plan

6.6.1. None.

7.0 ACP Composite Structures Manufacturing Process Requirements

7.1 Limitations and Standards

- 7.1.1. The permittee shall not utilize any resins or other materials that contain styrene in this process or the manufacturing of carbon composite parts at the permitted facility.
[45CSR13, R13-2754, 4.1.1.]
- 7.1.2. The permittee shall only use DYNASOLVE M-35 or other HAP free and non-chlorinated solvent in the Ultrasonic Cleaning Stations W-6S.
[45CSR13, R13-2754, 4.1.2.]
- 7.1.3. The ultrasonic cleaner shall be covered at all times, except for loading and unloading hardware, and filling/draining of the cleaning fluid.
[45CSR13, R13-2754, 4.1.3.]
- 7.1.4. VOC emissions from the Solvent Recovery System W-7S shall not exceed 0.03 TPY. Compliance with this emission limit shall be met by operating the associated condenser W-2C in such a way that the temperature of the vapor effluent does not exceed 70^o F or the condenser manufacturer's suggested temperature that achieves a 99% recovery efficiency for the Solvent Recovery System whichever is greater.
[45CSR13, R13-2754, 4.1.4.]
- 7.1.5. VOC emissions from the Mandrel Preparation Stations W-8S and W-9S shall not exceed 1.36 TPY.
[45CSR13, R13-2754, 4.1.5.]
- 7.1.6. VOC emissions from the Product Cleaning Station W-10S shall not exceed 8.20 TPY.
[45CSR13, R13-2754, 4.1.6.]
- 7.1.7. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 under "ACP Composite Structures Manufacturing Process", and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-2754, 4.1.7.]

7.2 Monitoring Requirements

- 7.2.1. For the purpose of demonstrating compliance with the limitations of 7.1.4., the permittee shall install and maintain a device that measures the temperature of the vapor effluent exiting the condenser W-2C. At least one reading shall be taken and recorded once per cycle. Such records shall be maintained in accordance with 3.4.2. of this permit.
[45CSR13, R13-2754, 4.2.1.]

7.3 Testing Requirements

- 7.3.1. None

7.4. Recordkeeping Requirements

7.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 under “ACP Composite Structures Manufacturing Process”, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-2754, 4.4.2.]

7.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 under “ACP Composite Structures Manufacturing Process”, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2754, 4.4.3.]

7.4.3. To determine compliance with the annual emission limits in 7.1.5. and 7.1.6., the permittee shall record the amount of product cleaning solvent and mold release agent consumed on a monthly basis for the purpose determining the actual VOC emissions released from the Mandrel Preparation (W-8S and W-9S) and Product Cleaning (W-10S) stations. Using these records, the permittee shall determine the previous month’s VOC emission rate and keep a 12 month rolling total. This 12 month rolling total shall be conducted no later than 15 days from the end of the previous month. A 12 month rolling total shall mean the sum of the monthly VOC emission rate at any given time for the previous twelve (12) consecutive months. Such records shall be maintained in accordance with 3.4.2. of this permit.
[45CSR13, R13-2754, 4.4.4.]

7.5. Reporting Requirements

7.5.1. None

7.6. Compliance Plan

7.6.1. None

8.0 Chemical Vapor Deposition Reactor (CVD) Requirements (Plant 1)

8.1 Limitations and Standards

- 8.1.1. The pH of the acid scrubber CVD-2C liquor shall be continuously monitored and maintained at a level between 6 and 11.
[45CSR13, R13-2680, 4.1.1.]
- 8.1.2. The acid scrubber CVD-2C water recirculation flow rate shall be monitored to detect a flow less than or equal to 90% of the scrubber manufacturer's recommended flow rate.
[45CSR13, R13-2680, 4.1.2.]
- 8.1.3. The pH of the ammonia scrubber CVD-1C liquor shall be continuously monitored and maintained at a level between 2 and 7.
[45CSR13, R13-2680, 4.1.3.]
- 8.1.4. The ammonia scrubber CVD-1C water recirculation flow rate shall be monitored to detect a flow less than or equal to 90% of the scrubber manufacturer's recommended flow rate.
[45CSR13, R13-2680, 4.1.4.]
- 8.1.5. Emissions shall not exceed 2.44 pounds per hour or 10.67 tons per year of Particulate Matter (as Ammonia Chloride) from emission point identified as CVD-1E.
[45CSR13, R13-2680, 4.1.5.]
- 8.1.6. Emissions shall not exceed 0.83 pounds per hour or 3.64 tons per year of Hydrogen Chloride from emission point identified as CVD-1E.
[45CSR13, R13-2680, 4.1.6.]
- 8.1.7. Emissions shall not exceed 0.32 pounds per hour or 1.40 tons per year of Ammonia from emission point identified as CVD-1E.
[45CSR13, R13-2680, 4.1.7.]
- 8.1.8. Emissions shall not exceed 0.11 pounds per hour or 0.03 tons per year of Benzene from emission point identified as CVD-1E.
[45CSR13, R13-2680, 4.1.8.]
- 8.1.9. The amount of isopropyl alcohol used as clean up solvent shall not exceed 2 gallons per hour or 17,472 gallons per year.
[45CSR13, R13-2680, 4.1.9.]
- 8.1.10. Mineral acids shall not be released from any type source operation or duplicate source operation or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity given in Table 45-7B found at the end of this rule.
[45CSR§7-4.2. and 45CSR13, R13-2680, 4.1.12.]
- 8.1.12. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed In Section 1.1. under “Chemical Vapor Deposition Reactor” and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11. and 45CSR13, R13-2680, 4.1.13.]

8.2. Monitoring Requirements

- 8.2.1. For the purpose of determining compliance with the opacity limits of 45CSR§7-3.1. (Condition 3.1.10), the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for all emission sources subject to an opacity limit.

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source (stack, transfer point, fugitive emission source, etc.) for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of 45CSR7A as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A 45CSR7A observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

[45CSR13, R13-2680, 4.2.1.]

- 8.2.2. For the purpose of determining compliance with 8.1.5, 8.1.6, 8.1.7, 8.1.8, the permittee shall monitor process gas usage of the Chemical Vapor Deposition Batch Reactor.

[45CSR13, R13-2680, 4.2.2.]

8.3. Testing Requirements

- 8.3.1. For the purpose of determining compliance with 8.1.5, 8.1.6, 8.1.7, 8.1.8, the Director, at his option, may require stack testing.

[45CSR13, R13-2680, 4.3.1.]

8.4. Recordkeeping Requirements

- 8.4.1. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0 under “Chemical Vapor Deposition Reactor”, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2680, 4.4.2.]

- 8.4.2. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0 under “Chemical Vapor Deposition Reactor”, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2680, 4.4.3.]

- 8.4.3. The permittee shall maintain records of the monthly volume of reactive process gas used by the Chemical Vapor Deposition Batch Reactor.

[45CSR13, R13-2680, 4.4.4.]

- 8.4.4. The permittee shall maintain records of the pH levels and water flow rates for the acid and ammonia scrubbers CVD-1C and CVD-2C.

[45CSR13, R13-2680, 4.4.5.]

- 8.4.5. The permittee shall maintain a record of all odor complaints received. The records shall contain an assessment of the validity of the complaints as well as any corrective actions taken.

[45CSR13, R13-2680, 4.4.6.]

- 8.4.6. The permittee shall maintain monthly and annual records of the amount of isopropyl alcohol used.

[45CSR13, R13-2680, 4.4.7.]

- 8.4.7. The permittee shall maintain records of all monitoring data required by Section 8.2.1 documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). An example form in Appendix A of Permit R13-2680 and consists the following information: Date of Observation, Data Entered By, Reviewed By, Date Reviewed, Description of the General Weather Conditions, Stack ID/Vent ID/Emission Point ID, Stack /Vent /Emission Point Description, Time of Observation, Visible Emissions (Yes/No), Consecutive Months of Visual Emissions and Comments. Should a visible emission observation be required to be performed per the requirements specified in 45CSR7A, the data records of each observation shall be maintained per the requirements of 45CSR7A. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

[45CSR13, R13-2680, 4.4.8.]

8.5. Reporting Requirements

- 8.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 45CSR7A must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.
[45CSR13, R13-2680, 4.5.1.]
- 8.5.2. The permittee shall report annually the volume of reactive process gas used by the Chemical Vapor Deposition Batch Reactor and resulting emissions using the mass balance approach presented in Attachment 2 to this Permit.
[45CSR13, R13-2680, 4.5.2.]

8.6. Compliance Plan

- 8.6.1. None.

ATTACHMENT 1

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹
(please use blue ink)
Representative Responsible Official or Authorized
Date

Name and Title
(please print or type) Name Title

Telephone No. Fax No.

- ¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:
- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (I) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
 - b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
 - c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of USEPA); or
 - d. The designated representative delegated with such authority and approved in advance by the Director.

ATTACHMENT 2

**Redacted Copy - Claim of Confidentiality
 Air Emission Estimates - ATK CVD Process**

Discussion:
 The Chemical Vapor Deposition (CVD) process to be installed at the ATK facility involves nine basic process steps using three reactive gases (Ammonia, [redacted] and [redacted]). The duration of the process steps range from [redacted] and not all process steps involve the flow of reactive gases (heatecool cycles, equipment clean/turnaround). Each process condition has been evaluated to determine the "worst case" generation of regulated air pollutants. These process conditions are described below along with associated air emission calculations. Maximum annual potential to emit calculations are based on the referenced process condition operating continuously for 8760 hours per year while the "typical" annual emission estimates take into account the actual duration that process condition may exist for a full operating year.

Basic Operating Condition and Input Parameters:

Ammonia Scrubber Rem. Eff.: 85 %
 Acid Scrubber Rem. Eff.: 85 %
 Acid Scrubber Flow Rate: 2000 gscfm
 Maximum Duration: 525600 min./yr.
 Molar Volume: 24.4 l/mol @ T=25°C & P=1atm
 grams per pound: 453.59 g/lb
 cubic feet per cubic meter: 35.31 ft³/m³
 pounds per ton: 2000 lb/T
 MW NH3: 17.04 g/mol
 MW NH4: 18.04 g/mol
 MW Cl: 35.45 g/mol
 MW NH4Cl: 53.49 g/mol
 MW HCl: 36.45 g/mol

Process Condition #1 - Ammonia Flow Only

Potential Air Contaminant(s) Formed: Ammonia [redacted]
 Max. NH3 Flow Rate:
 Duration at this Condition:

	Inlet			Outlet		
	Max. Concentration (mg/m3)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)	Max. Concentration (mg/m3)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)
Ammonia	283.58	2.12	0.95	42.54	0.32	0.14
			9.31			1.40

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Note: The emission calculations for Process Conditions #2 and #3 present the maximum theoretical formation of NH4Cl particulate and HCl. It is not possible to completely form NH4Cl and HCl concurrently in the reaction chamber. ATK anticipates running an ammonia "rich" process resulting in decreased HCl emissions. Based on the anticipated flow rates, the highest particulate matter loading will occur through NH4Cl formation. A portion of the particulate matter generated from the reactor will be removed by traps that are in place to protect downstream equipment.

Process Condition #2 - [Redacted]
 Potential Air Contaminant(s) Formed: PM_{2.5} (as NH4Cl), HCl
 Max. NH3 Flow Rate: [Redacted]
 PM removal efficiency by traps: 70 %
 PM removal efficiency by scrubber: 0 %
 Mass ratios of Contaminant to Precursor: [Redacted]
 Duration at this Condition: [Redacted]

Potential Air Contaminant Formed	Inlet			Outlet		
	Max. Concentration (mg/m3)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)	Max. Concentration (mg/m3)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)
PM 2.5 (as NH4Cl)	292.60	2.19	0.28	292.60	2.19	0.28
HCl	664.62	4.98	0.65	98.69	0.75	0.10

Sample Calculation - Complete Formation of NH4Cl Particulate
 Concentration of NH4Cl Particulate: [Redacted]

Mass of NH4Cl Particulate at Normal Operating Duration:

$$= 292.6 \frac{\text{mg}}{\text{m}^3}$$

Mass of NH4Cl Particulate at Maximum Operating Duration:

$$= 0.28 \frac{\text{ton}}{\text{yr}}$$

Mass of HCl Particulate at Maximum Operating Duration:

$$= 9.6 \frac{\text{ton}}{\text{yr}}$$

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Process Condition #3 - [Redacted]

Potential Air Contaminant(s) Formed: PM_{2.5} (as NH₄Cl), HCl

Max. NH₃ Flow Rate: [Redacted]

70 %

0 %

PM removal efficiency by traps

PM removal efficiency by scrubber

Mass ratios of Contaminant to Precursor:

Duration at this Condition [Redacted]

Potential Air Contaminant Formed	Inlet			Outlet		
	Max. Concentration (mg/m ³)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)	Max. Concentration (mg/m ³)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)
PM 2.5 (as NH ₄ Cl)	325.11	2.44	0.34	325.11	2.44	0.34
HCl	738.47	5.53	0.78	110.77	0.83	0.12
			10.67			10.67
			24.23			3.64

Process Condition #4 - Decomposition of PVA During Desizing

Discussion:

ATK has determined that a small amount of the polyvinyl acetate material in the coated fabric decomposes during the "desizing" process step. The amount of PVA decomposed is approximately 105 grams per process run. Decomposition products include benzene and acetic acid. A calculation of the potential amount of benzene formed from PVA decomposition is provided below.

Mass of Benzene Formed:

$$\left(\frac{78 \text{ gm}}{\text{mol}} \right) \cdot \left(\frac{105 \text{ gm}}{86 \text{ gm}} \right) = 93.23 \text{ gm}$$

Per process run. The process duration is ~ 2 hours and there will be ~ 200 process runs per year.

Concentration of Benzene in the Final Effluent Stack:

$$\frac{(105 \text{ gm}) \cdot (1 \text{ mol})}{(120 \text{ min}) \cdot (2000 \text{ ft}^3)} \cdot \left(\frac{3 \text{ ft}^3}{\text{min}} \right) \cdot \left(\frac{1000 \text{ mg}}{\text{gm}} \right) = 13.31 \frac{\text{mg}}{\text{m}^3}$$

Hourly Benzene Emissions During Desizing:

$$\frac{(93.23 \text{ gm}) \cdot (1 \text{ lb})}{(2 \text{ hr}) \cdot (453.59 \text{ gm})} = 0.103 \frac{\text{lb}}{\text{hr}}$$

Annual Benzene Emissions:

$$(93.23 \text{ gm}) \cdot \left(\frac{200}{\text{yr}} \right) \cdot \frac{(1 \text{ lb})}{(453.59 \text{ gm})} = 41.99 \frac{\text{lb}}{\text{yr}}$$

Summary of Process Emissions

	Inlet				Outlet			
	Max. Concentration (mg/m3)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)	Max. Annual (tpy)	Max. Concentration (mg/m3)	Max. Hourly (lb/hr)	Max. Normal Annual (tpy)	Max. Annual (tpy)
Potential Air Contaminant Formed								
PM 2.5 (as NH4Cl)	325.11	2.44	0.63	10.67	325.11	2.44	0.63	10.67
HCl	738.47	5.53	1.43	24.23	110.77	0.83	0.21	3.64
Ammonia	283.58	2.12	0.95	9.31	42.54	0.32	0.14	1.40
Benzene	15.31	0.11	0.021	0.021	15.31	0.11	0.021	0.021

General Clean-Up VOC Emissions (IPA Cleaning)

Long term usage rate: 60 gal/mo or 720 gal/yr

Short term usage rate: 2 gal/hr

$$\text{Short Term Emission} = \left(2 \frac{\text{gal}}{\text{hr}} \right) \left(6.59 \frac{\text{lb}}{\text{gal}} \right) = 13.18 \frac{\text{lb}}{\text{hr}}$$

$$\text{Annual Emissions} = \left(720 \frac{\text{gal}}{\text{yr}} \right) \left(6.59 \frac{\text{lb}}{\text{gal}} \right) \left(\frac{1 \text{ ton}}{2000 \text{ lb}} \right) = 2.37 \frac{\text{ton}}{\text{yr}}$$