West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate

Pursuant to

Title V

of the Clean Air Act

Issued to:

Alliant Techsystems Operations LLC
Allegany Ballistics Laboratory
R30-05700011-2014 (1 of 3)

John A. Benedict
Director

Issued: [Date of issuance] • Effective: [Equals issue date plus two weeks]
Expiration: [5 years after issuance date] • Renewal Application Due: [6 months prior to expiration]

Permit Number: **R30-05700011-2014 (1 of 3)**
Permittee: **Alliant Techsystems Operations LLC**
Facility Name: **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:	LLC
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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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
001 Ingredient Preparation – Plant 1					
1-1S	1-1E	Sweco Shaker-262	1981	500 lb/hr	None
1-2S	1-2E	Blender/Dryer Condenser Vacuum Pump-262	1963	Variable	1-8C: Condenser
1-3S (25s)	1-3E (23e)	Grinder-262	1981	500 lb/hr	1-1C: Dust Control Filter
1-4S (26s)	1-4E (24e)	Nitrate Ester Sparge-352	1988	1200 lb/hr lacquer	1-2C: Cryogenic Recovery
1-5S	VI*	Chemical Mixing Area-373	1993	Variable	1-3C: Carbon bed
1-6S	VI*	Parts Cleaning-373	1993	Variable	1-3C: Carbon bed
1-7S	1-5E	Sweco Shaker-374	1997	700 lb/hr	None
1-8S (41s)	1-6E (41e)	Blender/Dryer Condenser Vacuum Pump-374	2002	Variable	1-9C: Condenser
1-9S (40s)	1-7E (40e)	Grinder Mill-374	1993	700 lb/hr	1-4C: Dust Control Filter
1-10S	1-8E	RDX Drain Table-374	2002	Variable	None
1-11S (44s)	1-9E (44e)	Handling System-384	1994	Variable	1-5C: Dust Control Filter (HEPA)
1-12S (48s)	1-12E (48e)	Weighing System-384	1995	Variable	1-6C: Dust Control Filter (HEPA)
1-13S	1-10E	Heptane Storage Tank-384	1995	500 gallons	None
1-14S (45s/47s)	1-10/11E (45e/47e)	Mix Bowl-384	1995	500 lb	1-7C: Condenser
1-15S	1-10E	Attritor-384	1995	500 lb	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
1-16S	VI*	3-Roll Mill-384	1995	NA	None
1-17S	VI*	Electric Drying Oven-271	Early 80s	Variable	None
1-18S	VI*	Electric Drying Oven-271	Early 80s	Variable	None

002 Chamber Preparation – Plant 1

2-11S (54s)	2-9E (54e)	Walk-In Spray Booth-167	1980	Variable	2-7C (54c): Fabric filter
2-8S	VI*	Progressive Blasting Systems Grit Blaster-420	1999	200 lb/hr	2-1C: Cyclone dust collector
2-10S	VI*	Two Roll Mill-420	1999	NA	None
2-12S	2-10E	Fume Hood for CBL-420	1999	Variable	None
2-13S	2-11E	Case Bond Liner Spray Booths-420	1999	Variable	2-5C: Fabric filters
2-14S	2-11E	Case Bond Liner Spray Booths-420	1999	Variable	2-6C: Fabric filters
2-15S	2-12E	Drying Oven-420	1999	Variable	None
2-16S	2-13E	Actrel Degreaser-420	1999	355 gal	None
2-17S	2-14E	Actrel Solvent Recovery Still System-420	1999	50 gal/hr	None
2-18S	2-15E	Stencil Booth-420 Bay 3	2010	Variable	2-8C: Fabric filters

003 Mixing & Casting Operations – Plant 1

3-1S	VI*	50 Gallon Mixer-302	1964	50 gallons	None
3-2S	VI*	Casting Pits-308	1964	50 gallons	None
3-4S	VI*	Casting Pits-356	1990	150 gallons	None
3-5S	VI*	Linear Casting Line	1980	150 gallons	None
3-6S	NDV**	300 Gallon Mixer-375	2012	300 gallons	None

005 Propellant Machining – Plant 1

5-1S	VI*	Drilling/machining equipment-410	1996	NA	None

006 Loading/Inspection/Final Assembly – Plant 1

6-1S	NE***	X-Ray equipment-180	1981	Variable	None
6-2S	NE***	X-Ray equipment-360	1991	Variable	None
6-3S	6-1E	XO-Mat X-Ray Developer System-360	1991	Variable	None
6-4S (144s)	6-2E (144e)	Paint Booth-364	1995	Variable	6-1C: Fabric filter
6-5S	6-3E	Exhaust Hood-369	1995	Variable	None
6-13S	6-10E	Large & Small Temperature Chambers-369	1995	NA	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
6-14S	6-11E	Large & Small Temperature Chambers-369	1995	NA	None
6-15S	6-12E	Plasma Etch Machine-369	1995	Variable	6-7C: NaOH Neutralization Tank
6-6S (152s)	6-4E (152e)	Paint Booth-392	1995	Variable	6-2C: Fabric filter
6-7S (153s)	6-5E (153e)	Paint Booth-392	1995	Variable	6-3C: Fabric filter
6-8S (154s)	6-6E (154e)	Paint Booth-392	1995	Variable	6-4C: Fabric filter
6-9S (155s)	6-7E (155e)	Paint Booth-392	1995	Variable	6-5C: Fabric filter
6-10S	6-8E	Teflon Spray Booth-412	1997	Variable	6-6C: Fabric filter
6-11S	6-8E	Teflon Drying Oven-412	1997	3 mm BTU/hr	None
6-12S	6-9E	Decontamination Oven-412	1997	1.5 mm BTU/hr	None

007 Mold Parts Cleanup – Plant 1

7-1S (10s)	7-1E	Parts Washer-151	Pre-1970	36 gallons	None
7-2S (11s)	7-2E	Parts Washer-151	Pre-1970	35 gallons	None
7-3S	7-3E	Parts Washer-407 (6 pans)	1997	125 gallons (6)	None
7-4S	7-3E	Parts Washer-407	1997	35 gallons	None
7-5S	7-3E	Parts Washer-407 (2 pans)	1997	52 gallons	None
7-6S	7-4E	Acetone Recovery Unit	1997	5.5 gal/hr	None

00C Gas Generator Fabrication – Plant 1

C-1S	C-1E	Cellulose Acetate Machine-420B2	2000	NA	None
C-2S	C-2E	Weigh-Out and Mixing Hood-180	2000 - moved in 2012	Variable	None
C-3S	VI*	Inhibiting Area-180	2000 - moved in 2012	Variable	None
C-4S	VI*	Vacuum Pump-180	2000 - moved in 2012	Variable	None

00E Ingredient Preparation – Plant 2

E-1S (15s)	VI*	Gustafson Grinder System-2003	1978	500 lb/hr	E-1C: Mikro-D Pulsaire dust collector
E-2S	VI*	Mikro Airlock Grinder System-2003	1978	500 lb/hr	E-2C: Mikro-D Pulsaire dust collector
E-3S	VI*	Walk-In Freezer-2015	Pre-80s	Variable	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
E-4S	VI*	Walk-In Freezer-2015	Pre-80s	Variable	None
		00F Chamber Preparation – Plant 2			
F-1S	F-1E	Binks Chemlok/Sparrow Spray Booth-2014	Pre-80s	Variable	F-1C: Fabric filters
F-2S	F-21E	Slinger-2014	1999	Variable	None
F-3S	VI*	3-Roll Mill-2014	Pre 80s	Variable	None
F-4S	F-2E	Curing/Drying Oven #3-2014	1994	Variable	None
F-5S	F-3E	Binks Paint Booth-2014	1994	Variable	F-2C: Fabric filters
F-6S	F-4E	Small Actrel Solvent Distillation Units-2014	1995	8 gal/hr	None
F-7S (16s)	F-5E (16e)	Vertical Spray Booth – Paint [Intermediate (Sparrow) Line] – 2014	1978	Variable	F-3C: Fabric filters
F-8S	F-6E	Trinco DP850 Grit Blast Cabinet-2014 Intermediate (Sparrow) Line] –2014	1978	Variable	F-4C: Cyclone dust collector
F-9S	F-7E	Actrel Degreaser [Intermediate (Sparrow) Line] –2014	1995	17 gal/min	None
F-10S	F-8E	Drying Oven #1 [Intermediate (Sparrow) Line] –2014	1978	Variable	None
F-11S	F-8E	Drying Oven #4 [Intermediate (Sparrow) Line] –2014	1978	Variable	None
F-12S (7s)	F-9E (7e)	Case Bondliner Paint Booth [Intermediate (Sparrow) Line] – 2014	1978	Variable	F-5C: Fabric filters
F-13S	F-10E	Drying Oven #2 [Intermediate (Sparrow) Line] –2014	1978	Variable	None
F-14S	VI*	Ross Mixer-5 gallon [Intermediate (Sparrow) Line] –2014	1980	5 gallon	None
F-15S	VI*	Ross Mixer-1 gallon [Intermediate (Sparrow) Line] –2014	1968	1 gallon	None
F-16S	VI*	Cowles Dissolver/Mixer/Disperer [Intermediate (Sparrow) Line] – 2014	1968	5 gallon	None
F-17S	F-11E	Vertical Spray Booth – Alodine [Intermediate (Sparrow) Line] – 2014	1978	Variable	F-6C: Demister
F-18S	VI*	Benchtop Electric Curing Oven #7 [Intermediate (Sparrow) Line] – 2014	1968	Variable	None
F-19S	F-12E	Mold Release Spray Booth [Intermediate (Sparrow) Line] – 2014	1988	Variable	F-7C: Fabric filters

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
F-20S	F-13E	DeVilbiss Horizontal Spray Booth-2014	1980	Variable	F-8C: Fabric filter
F-21S (27s)	F-14E (25e)	Zero Mfg. Grit Blaster (Large Motor Line) −2014	1988	500 lb/hr grit	F-9C: Cyclone dust collector
F-22S	F-15E	Actrel Degreaser (Large Motor Line) −2014	1995	17 gal/min	None
F-23S (29s)	F-16E (27e)	Binks Vertical Internal Paint Booth (Large Motor Line) −2014	1988	Variable	F-10C: Fabric filter
F-24S (31s)	F-17E (29e)	Paint/Degreaser Drying Room/Oven #5 (Large Motor Line) −2014	1988	Variable	None
F-25S (30s)	F-18E (28e)	Binks Vertical Paint Booth (Large Motor Line) −2014	1988	Variable	F-11C: Fabric filter
F-26S	F-19E	Actrel Vacuum Still & Storage Tank (Large Motor Line) −2014	1995	60 gal/hr	None
F-27S	F-20E	Drying Oven #6-2014	1980	Variable	None

00G Mixing & Casting Operations − Plant 2

G-2S		Mixer-300 gallon-2000	1968	300 gallon	None
G-3S		Casting Pit-2000	1968	300 gallon	None
G-4S	G-2E	Feed Hopper Exhaust Hood-2000	1968	Variable	G-1C: Fabric filter

00I Disassembly/Machining − Plant 2

I-1S	VI*	Propellant Machining System	1968	Variable	None

00J Loading/Inspection/Final Assembly − Plant 2

J-1S	VI*	Varian X-Ray equipment-2010	1990	Variable	None
J-2S	OS****	Kodak XO-Mats X-Ray Processor-2010	1990	Variable	None
J-3S	J-1E	Drying Oven-2011	1980	Variable	None
J-4S (8s)	J-2E (8e)	Interior Coating Spray Line-2011	1980	Variable	J-1C: Fabric filter
J-5S	J-3E	Vacuum Test System-2011	1980	Variable	None
J-7S	J-4E	Automated Case Painting System-368 Annex	2000 – moved in 2012	Variable	J-2C: Fabric filters
J-8S	J-5E	Stenciling Booth-2031	2000	Variable	J-3C: Fabric filters
J-9S	J-6E	Drying Oven-2031	2000	Variable	None
J-10S	J-7E	Stenciling Conveyor-2011	1978	Variable	J-4C: Fabric filter

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
B-95S	B-27E	Pittsburgh Spray Booth-2031	2000 – moved in 2012	Variable	B-11C
B-102S	B-34E	Pittsburgh Spray Booth-2031	2008 – moved in 2012	Variable	B-14C
J-11S	J-8E	Stenciling Booth 2039	2012	Variable	J-5C: Fabric filter

00K Mold Parts Cleanup – Plant 2

K-1S	OS****	Parts Washer-8203	1978	NA	None
K-3S (9s)	K-1E (9e)	Parts Washer-8203	1978	56 gallons	None
K-4S	OS****	Parts Washer-8203	1978	NA	None
K-5S (14s)	K-2E (14e)	Solvent Recovery System-8203	2001	5 gal/hr	None

Control Devices

Control Device ID	Emission Point ID	Control Device Description	Year Installed / Modified	Design Capacity	Comments
1-1C	1-3E	Dust Control Filter	1981	75-97.5% (PM-RDX)	
1-2C	1-4E	Cryogenic Recovery for sparging operation	1988	80% (Methylene chloride)	
1-3C	VI*	Carbon bed for material transfer hood	1993	unknown	
1-4C	1-7E	Dust Control Filter	1993	99.9% (PM-RDX)	
1-5C	1-9E	Dust Control Filter (HEPA)	1994	99.9%+ (Pb)	
1-6C	1-12E	Dust Control Filter (HEPA)	1994	99.9%+ (Pb)	
1-7C	1-10/11E	Condenser	1995	unknown	
1-8C	1-2E	Condenser	1981	unknown	
1-9C	1-6E	Condenser	2001	90% (IPA/water)	
2-1C	VI*	Cyclone dust collector grit blaster	1999	unknown	
2-5C	2-11E	Fabric filters for bondliner booth	1999	90% (PM)	
2-6C	2-11E	Fabric filters for bondliner booth	1999	90% (PM)	
2-7C (54c)	2-9E	Fabric filter for paint booth	1980	90% (PM)	
2-8C	2-15E	Fabric filter for paint booth	2010	90% (PM)	
6-1C	6-2E	Fabric filter for paint booth	1995	90% (PM)	
6-2C	6-4E	Fabric filter for paint booth	1995	90% (PM)	
6-3C	6-5E	Fabric filter for paint booth	1995	90% (PM)	
6-4C	6-6E	Fabric filter for paint booth	1995	90% (PM)	

Control Device ID	Emission Point ID	Control Device Description	Year Installed / Modified	Design Capacity	Comments
6-5C	6-7E	Fabric filter for paint booth	1995	90% (PM)	
6-6C	6-8E	Fabric filter for Teflon spray booth	1997	90% (PM)	
6-7C	6-12E	NaOH Neutralization Tank for plasma arc cutter	1995	unknown	
E-1C	VI*	Mikro-D Pulsaire dust collector for AP	1978	99.9% (PM)	
E-2C	VI*	Mikro-D Pulsaire dust collector for AP	1978	99.9% (PM)	
F-1C	F-1E	Fabric filters for bondliner booth	1978	unknown	
F-2C	F-3E	Fabric filters for paint booth	1994	unknown	
F-3C	F-5E	Fabric filters for paint booth	1978	unknown	
F-4C	F-6E	Cyclone dust collector for grit blaster	1978	99.9% (PM)	F-5C
F-5C	F-9E	Fabric filters for bondliner booth	1978	unknown	
F-6C	F-11E	Demister for alodine process	1978	unknown	
F-7C	F-12E	Fabric filters for paint booth	1988	unknown	
F-8C	F-13E	Fabric filter for paint booth	1980	unknown	
F-9C	F-14E	Cyclone dust collector for grit blaster	1988	99.9% (PM)	
F-10C	F-16E	Fabric filters bondliner booth	1988	90% (PM)	
F-11C	F-18E	Fabric filters for paint booth	1988	90% (PM)	
G-1C	G-2E	Fabric filter for solid ingredient feed hopper	1968	unknown	
J-1C	J-2E	Fabric filter for bondliner booth	1980	90% (PM)	
J-2C	J-4E	Fabric filters for paint booth	2000	90% (PM)	
J-3C	J-5E	Fabric filters for paint booth	2000	90% (PM)	
J-4C	J-7E	Fabric filter for Stencilling Conveyor	2000	90% (PM)	
J-5C	J-8E	Fabric filter for Stenciling Booth 2039	2012	90% (PM)	

* VI stands for "Vents inside of building"
** NDV – Stands for "No direct vent"
*** NE – Stands for "No emissions"
**** OS – Stands for "Out of service"

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
R13-1455A	07/18/2001
R13-0898B	04/27/2004

Permit Number	Date of Issuance
R13-1694B	11/17/2003
R13-2037A	07/26/2001
R13-2246A	10/14/03
R13-1782A	07/19/2001
R13-1798B	02/17/2011
R13-0401B	05/23/2001
R13-1047B	03/04/2002

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 monthly 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
CBI	Confidential Business Information
CEM	Continuous Emission Monitor
CES	Certified Emission Statement
C.F.R. *or* CFR	Code of Federal Regulations
CO	Carbon Monoxide
C.S.R. *or* CSR	Codes of State Rules
DAQ	Division of Air Quality
DEP	Department of Environmental Protection
FOIA	Freedom of Information Act
HAP	Hazardous Air Pollutant
HON	Hazardous Organic NESHAP
HP	Horsepower
lbs/hr *or* lb/hr	Pounds per Hour
LDAR	Leak Detection and Repair
m	Thousand
MACT	Maximum Achievable Control Technology
mm	Million
mmBtu/hr	Million British Thermal Units per Hour
mmft^3/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
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10μm in diameter
pph	Pounds per Hour
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
psi	Pounds per Square Inch
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
TPY	Tons per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VEE	Visual Emissions Evaluation
VOC	Volatile Organic Compounds

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 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 (Sources ID 2-11S, F-5S, F-7S, F-20S, F-25S, 6-4S, 6-6S, 6-7S, 6-8S, 6-9S, J-7S, J-8S, J-10S, J-11S and 2-18S) 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:

§ 63.744 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. H_2O) 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 nonflamable 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_2O 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 and 45CSR13, R13-2037, B.7]

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]

The provisions of 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, R13-0401, B.6; R13-1047, B.4; R13-1455, B.5; R13-1694, B.5; R13-1782, B.6; R13-1798, B.6; R13-2037, B.5 & R13-2246, 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, R13-0401, B.7; R13-0898, B.5; R13-1047, **B.4**; **R13-1455, B.6; R13-1694**, **B.6; R13-1782, B.7; R13-1798, B.7; R13-2037, B.6 & R13-2246, 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 the Emission Points 1-3E, 1-7E, F-6E, F-11E, F-14E subject to 45CSR7, 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 monthly during periods of 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 2-9E, 2-10E, 2-11E, 2-15E, F-1E, F-3E, F-5E, F-9E, F-12E, F-13E, F-16E, F-18E, G-2E, 6-2E, 6-4E, 6-5E, 6-6E, 6-7E, 6-8E, J-2E, J-4E, J-5E, J-7E and J-8E) 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, that no holes exist, and that the filters are not overloaded. Any changes made to filters during the checks or any filter replacements shall be recorded. (See attachment D as a sample form).
[45CSR§30-5.1.c, 45CSR13, R13-1798, A.7]

3.2.3. Compliance with Section 3 of 45CSR7 (Requirement 3.1.10 of this Permit) for handling areas (Emission Points 1-9E and 1-12E) shall be determined by use of properly maintained HEPA filters (as per Requirement 4.4.5), and utilizing manometers to ensure proper operation of the filters prior to each use of equipment. Permittee shall keep records of manometer checks and any necessary corrective actions (including filter replacements).
[45CSR§30-5.1.c]

3.2.4. The permitted facility (Sources ID 2-11S, F-5S, F-7S, F-20S, F-25S, 6-4S, 6-6S, 6-7S, 6-8S, 6-9S, J-7S, J-8S, J-10S, J-11S and 2-18S) 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.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status,

also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.

2. The result of the test for each permit or rule condition.

3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13, R13-1455, B.8; R13-1694, B.8; R13-0401, B.9; R13-1798, B.9; R13-1782, B.9; R13-2037, B.9]

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, R13-1455, B.8; R13-1694, B.8; R13-0401, B.9; R13-1798, B.9; R13-1782, B.9; R13-2037, 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, R13-1455, B.8; R13-1694, B.8; R13-0401, B.9; R13-1798, B.9; R13-1782, B.9; R13-2037, 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 SO_2 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.

g. Tests to determine compliance with HAP emission limits shall be conducted in accordance with 40 CFR 63.

[45CSR13, R13-1455, B.7; R13-1694, B.7; R13-0401, B.8; R13-1798, B.8; R13-1782, B.8; R13-2037, 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.]

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.]

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.]

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 for 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 through 7.0 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 40CFR§63.745 (as per Requirement 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 content, 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 Emission Point 1-2E, 1-3E, 2-15E, 6-8E (Spray Booth), F-1E, F-3E, F-11E, F-12E, F-13E, G-2E, J-4E, J-5E, J-7E, J-8E, VI (Control Device ID 2-1C, E-1C, E-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. Except for the electronic submittal of the annual certification to the USEPA as required in 3.5.5 below, 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 Air Enforcement and Compliance Assistance (3AP20)
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 annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. 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 (as indicated in Requirement 3.1.9) shall comply with all the applicable reporting 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:

§ 63.753 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 and 45CSR13, R13-2037, B.7]

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 two sites under remediation for groundwater contamination. These sites are both CERCLA ("Superfund") sites and are thus exempt from the MACT requirements. The facility also has a third site, which is currently being investigated under the RCRA corrective action program, that is expected to begin some form of remediation within the next five years. This site would also be exempted since it is being managed under a RCRA corrective action. In addition, none of the sites would generate emissions of more than 1 megagram per year of HAPs.

(e) 40CFR63, Subpart WWWWW – 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.

4.0 Ingredient Preparation Requirements (Plant 1 (Group 001) and Plant 2 (Group 00E))

4.1. Limitations and Standards

4.1.1. Maximum Cyclotrimethylene Trinitramine (RDX) and Cyclotetramethylene Tetranitramine (HMX) production from sources 1-3S, 1-8S and 1-9S in Buildings 262 and 374 shall not exceed 3668 tons/year. Compliance with the production limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the production of (RDX) and (HMX) at any given time for the previous twelve (12) consecutive calendar months.
[45CSR13, R13-1455, A.1]

4.1.2. Emissions of particulate matter from the filter vent, Emission Point ID 1-7E, used to control emission from the fluid energy, shall not exceed one (1) lb/hr of particulate matter (RDX and HMX).

Emission Point ID	Pollutant	Hourly Emissions (Lb/Hr)
1-7E RDX Grinding Mill-374	PM (Cyclotrimethylene Trinitramine (RDX) and Cyclotetramethylene Tetranitramine (HMX))	1

[45CSR13, R13-1455, A.2]

4.1.3. Emissions of VOC from the blender/dryer condenser vent, Emission Point ID 1-6E, shall not exceed 0.73 lbm/hr.

Emission Point ID	Pollutant	Hourly Emissions (Lb/Hr)
1-6E Blender/Dryer Condenser Vacuum Pump-374	VOC	0.73

[45CSR13, R13-1455, A.3]

4.1.4. The fluid energy mill, permitted under R13-0621 (Source 1-3S), shall be utilized for production only when the fluid energy mill permitted, under R13-1455 (Source 1-9S), is not operating.
[45CSR13, R13-1455, A.4]

4.1.5. Emissions of particulate matter from Emission Point ID 1-9E and 1-12E, the discharge vents of the filter units used to control emissions from the handling and weighing area, shall not exceed 1.0 lb/hr of lead citrate or lead sesquioxide per emission point and shall be controlled at all times using the Dust Control Filter Systems (ID# 1-5C and 1-6C).

Emission Point ID	Pollutant	Hourly Emissions (Lb/Hr)
1-9E	Lead Citrate or Lead Sesquioxide (PM)	1
1-12E	Lead Citrate or Lead Sesquioxide (PM)	1

[45CSR13, R13-1694, A.1]

4.1.6. Emissions of Heptane (VOC) from Emission Point ID 1-10E, shall not exceed 2.0 lb/hr.

Emission Point ID	Pollutant	Hourly Emissions (Lb/Hr)
1-10E Mix Bowl-384	Heptane (VOC)	2

[45CSR13, R13-1694, A.2]

4.1.7. After all liquid VOC has been evaporated from the mix bowl, Emission Point 1-10E shall be valved shut and Emission Point 1-11E (the condenser) is opened. The mix bowl shall then be evacuated to remove the VOC vapors in the free volume of the mix bowl and associated plumbing and the VOC vapors shall pass through the condenser. Emissions of VOC from Emission Point ID 1-11E (the condenser) shall not exceed 2.0 lb/hr.

Emission Point ID	Pollutant	Hourly Emissions (Lb/Hr)
1-11E Condenser 1-7C	VOC	2

[45CSR13, R13-1694, A.3]

4.1.8. The VOC evaporation process from the mix bowl, source 1-14S, shall operate a maximum of 2,080 hr/yr.
[45CSR13, R13-1694, A.4]

4.1.9. A maximum of 500 pounds/batch of lead salt paste utilizing 250 pounds/batch of lead citrate or lead sesquioxide shall be charged per batch.
[45CSR13, R13-1694, A.5]

4.1.10. To determine compliance with Requirement 4.1.5, the permittee shall be subject to announced and unannounced enforcement and compliance inspections. These inspections shall be performed by the Director or his/her duly authorized representative.
[45CSR13, R13-1694, B.1]

4.1.11. The methylene chloride emission control system, referenced in Mr. G. H. Moody's letter of December 19, 1986 (see Attachment 1 to this Permit), shall be in operation during sparging operations in the Liquid Nitrate Ester Solution Facility (Emission Point 1-4E, Control Device ID 1-2C - Cryogenic Recovery System at building 352) at all times, excepting only periods of emergency repairs for the control equipment and unanticipated control equipment failure for reasons beyond the reasonable control of the Company, and should achieve a minimum recovery of 80% of the VOC released by the sparging operation. In the event that the control equipment is inoperable, the production unit shall be shut down as expeditiously as possible. Recognizing the potentially reactive nature of the production units products, however, in-process material may continue to be processed. The Company shall not begin operation of the production unit when the control equipment is not in operation without being granted a variance by the Director.
For all periods in which control equipment or measures are inoperable or malfunctioning, the Company shall not operate the related production equipment unless the Company is granted a variance pursuant to 45CSR§27-12.1.

[45CSR13, R13-0898, A.1]

4.1.12. The annual limit for methylene chloride air emissions through vent ID# 1-4E is 3,990 lb/yr.

Emission Point ID	Pollutant	Annual Emissions (lb/yr)
1-4E Nitrate Ester Sparge-352	Methylene Chloride (HAP)	3990

[45CSR13, R13-0898, A.2]

4.1.13. (1) The Gustafson Grinder System, Source E-1S, located in Building 2003, shall be operated with the cyclone collector and dust collector systems at all times.
(2) Production shall not exceed 1,456 tons per year.

[45CSR13, R13-0401, A.6]

4.2. Monitoring Requirements

4.2.1. None.

4.3. Testing Requirements

4.3.1. To determine compliance with the emission limitation as set forth in Requirements 4.1.2, 4.1.3, 4.1.5, 4.1.6 and 4.1.7 above, test(s) shall be conducted in accordance with Requirements 3.3.1 and 3.3.2 contained herein.
[45CSR§30-5.1.c, 45CSR13, R13-1455, B.2, 45CSR13, R13-1694, B.3]

4.3.2. 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 4.1.12. 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 this source.
[45CSR13, R13-0898, B.3]

4.4. Recordkeeping Requirements

4.4.1. For the purpose of determining compliance with the maximum production limit set forth in Requirement 4.1.1, and also with emission limits set forth in Requirements 4.1.2, 4.1.3 and 4.1.5, the applicant shall maintain a monthly record of the amount of production of Cyclotrimethylene Trininitramine (RDX) and Cyclotetramethylene Tetranitramine (HMX), and total monthly production of both (RDX and HMX) in tons, and also add the monthly production to get a yearly total production in a manner similar to Attachment A of the Permit R13-1455A, and also calculate pounds of VOC emitted, from each emission point, to the atmosphere on a monthly basis. Such calculations for Emission Point 1-6E shall be based upon accurate determinations or tests to establish condenser efficiency. Said records shall be maintained on site for a period of at least five (5) years and upon request of the Director or his/her duly authorized representative shall be certified and made available to the Division of Air Quality.
[45CSR13, R13-1455, B.1 and 45CSR§30-5.1.c]

4.4.2. For the purpose of determining compliance with the conditions set forth in Requirements 4.1.4, the permittee shall maintain records of the operating times on a daily basis (start time and end time) of source 1-3S and source 1-9S, in a manner similar to Attachment B of the Permit R13-1455A.
[45CSR13, R13-1455, B.3]

4.4.3. For the purpose of determining compliance with the provisions set forth in Requirements 4.1.6, 4.1.7, 4.1.8 and 4.1.9 above, the permittee shall maintain a record which at a minimum contains the following information (as per Attachment A of the Permit R13-1694A):

a) date and the hours operated each day,

b) the quantity weighed of lead citrate or lead sesquioxide each day in the handling area,

c) the pounds of VOC emitted, from each emission point, to the atmosphere each day. Such determination shall be based upon accurate determinations or tests to establish condenser efficiency.

Said record shall be maintained on site for a period of at least five years and shall be certified and made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-1694, B.2]

4.4.4. To determine compliance with the production limits set forth Requirement 4.1.13, the permittee shall keep records of the amount of production on a rolling yearly total. A rolling yearly total shall mean the amount of production at any given time for the previous twelve (12) consecutive calendar months. This information, shall be recorded in a manner that, at a minimum, contains the same information as Attachment B of the Permit R13-0401B (Production of Gustafson Grinder System in Building 2003): monthly records of Gustafson Grinder System rolling yearly production (in tons per year), and shall be kept on site for a period of five years and certified records shall be made available for inspection by the Director or a duly authorized representative of the Director upon request.
[45CSR13, R13-0401, B.4]

4.4.5. To demonstrate compliance with the Requirements 4.1.2, 4.1.5 and 4.1.13 the permittee shall conduct an annual preventative maintenance inspection/cleaning/replacement/refurbishment of the bags, filters, bag connection, and dust hoppers, as appropriate, of the baghouses and HEPA Filter Systems at each emission point specified, in order to ensure proper operation of the control devices. Records shall be maintained on site stating the date and time of each control device annual preventative maintenance activity, the results and all corrective actions taken.
[45CSR§30-5.1.c]

4.4.6. To demonstrate compliance with the Requirement 4.1.12 the permittee shall maintain records of the amounts of methylene chloride sparged per batch as well as the quantity of methylene chloride recovered and drummed for reuse. These records shall be used to determine losses of methylene chloride. Compliance with the annual emission limit shall be demonstrated using a Rolling Yearly Total. Rolling Yearly Total means the sum of methylene chloride emissions generated by the Emission Point 1-4E at any given time for the previous twelve (12) consecutive calendar months. Records shall be maintained on site for a period of no lees than five (5) years, and shall be certified and made available to the Director or his/her duly authorized representative upon request.
[45CSR13, R13-0898, B.2]

4.4.7. To demonstrate compliance with the Requirements 4.1.11, the permittee shall maintain records of the sparging operations and Cryogenic Recovery system operation and maintenance.
[45CSR13, R13-0898, B.1]

4.5. Reporting Requirements

4.5.1. Upon the discovery of any TAP not addressed in this Permit and the emissions of which is not known as of this date, the Company shall notify the Director in writing within fifteen (15) days of such discovery. Unless the Director determines these emissions to be insignificant, the Company shall submit a compliance program for control of such emissions within sixty (60) days of the date of notification. Upon a determination by the Director that the proposed compliance program represents BAT, the Director shall, in his or her discretion, consider such program for a consent order and shall determine the conditions to be met for approval and entry of such consent order.
[45CSR13, R13-0898, B.4]

4.6. Compliance Plan

4.6.1. None.

5.0 Chamber Preparation Requirements (Plant 1 (Group 002) and Plant 2 (Group 00F))

5.1. Limitations and Standards

5.1.1. The emissions, from Emission Point 2-9E, to the atmosphere shall not exceed the following emission rates:

Emission Point ID	Pollutant	Emission Rate	
		lb/hr	lb/yr
2-9E Walk-In Spray Booth-167	Particulate Matter (PM)	0.408	41.09
	Volatile Organic Compound (VOC)	9.27	1120.2
	Hazardous Air Pollutant (HAP)	3.16	450.19

[45CSR13, R13-2037, A.1]

5.1.2. Control Device 2-7C, to be utilized for the purpose of controlling particulate matter emissions from Emission Point 2-9E, shall consist of a Research Products Corp. Series 3000 RP Paint Arrestors Filter, or other filter of comparable control efficiency.
[45CSR13, R13-2037, A.2]

5.1.3. For the purpose of determining compliance with Requirement 5.1.2 above, 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 5.1.2 above, 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]

5.1.4. Particulate Matter (PM_{10}) and Volatile Organic Compound (VOC) emissions from the rocket motor chamber preparation process, Building 420, shall not exceed the hourly and annual limitations specified below:

Emission Point I.D.	Source Vented through this Point	Maximum PM10 Emission Limitation		Maximum VOC Emission Limitation	
		(lb/hr)	(lb/yr)	(lb/hr)	(lb/yr)
2-10E Fume Hood for CBL-420	Exhaust Hood (2-12S) - for ingredient mixing of casebond liner mixtures and housing dip coating components for interior tooling for Hellfire motors.	Neg.	Neg.	0.67 (2)	450 (2)
2-11E Case Bond Liner Spray Booths-420	Common duct for spray booths applying casebond liner mixtures: - Booth 2-13S - 1st casebond liner mixture to be applied: Neoprene rubber based lacquer - Booth 2-14S - 2nd casebond liner mixture to be applied: Formvar or Butvar resin lacquer	0.012 (1)	14.6 (1)	3.7 (3)	7750 (3)
2-12E Drying Oven - 420	Neoprene and Formvar or Butvar Drying Oven (2-15S)	0	0	0.19 (4)	53.3 (4)
Total		0.012	14.6	4.6	8253

(1) Emissions after controls. Controlled particulate emissions are calculated based on 40% overspray and a 90% control device removal efficiency. The control device is a filter bank of 6 disposable polyester fiber filters.

(2) VOC emissions from exhaust hood 2-12S are based on the following assumptions:
- Two percent (2%) by weight of the volatile ingredients for the making of casebond liner stock solution and lacquers is lost through the hood during weigh out and mixing operations
- Forty-five percent (45%) by weight of the volatile ingredients from the dip coating of Hellfire rods is lost through the hood exhaust. Five percent (5%) by weight is lost through the oven. The remaining 50% is collected for waste disposal.
- One hundred percent (100%) by weight of the MEK used for nozzle and insulator bonding is lost through the exhaust hood.

(3) VOC emissions from the two (2) spray booths are based on the following assumptions:
- Spray Booths 2-13S (Neoprene) and 2-14S (Butvar) -Twenty five percent (25%) by weight of the n-propyl bromide used for cleanup is emitted. The remaining material will be collected for reuse or waste disposal.
- Spray Booth 2-14S (Formvar) - Fifty percent (50%) by weight of the Toluene/Ethanol (60/40) used for cleanup of formvar spray equipment is emitted. The remaining material will be collected for reuse or waste disposal.

(4) Five percent (5%) by weight of the volatile ingredients from the dip coating of Hellfire rods is lost through the oven.

[45CSR13, R13-2246, A.1]

5.1.5. Emissions to the atmosphere from the Case Bond Liner Booth (Sparrow Line), source F-12S, through emission point F-9E, located in Building 2014, shall be limited as follows:

Emission Point ID	Pollutant	Emission Limit	
		lb/hr	ton/yr
F-9E Case Bondliner Paint Booth (Intermediate Line) - 2014	VOC	6.0	0.5
	HAP	2.0	0.5
	PM	No Hourly Limit	0.1

[45CSR13, R13-0401, A.4.]

5.1.6. Emissions to the atmosphere from the Sparrow Vertical Paint Booth, source F-7S, through emission point F-5E, located in Building 2014, shall be limited as follows:

Emission Point ID	Pollutant	Emission Limit	
		lb/hr	ton/yr
F-5E Vertical Spray Booth - Paint (Intermediate Line) - 2014	VOC	6.0	1.0
	HAP	2.0	1.0
	PM	No Hourly Limit	0.1

[45CSR13, R13-0401, A.7]

5.1.7. Emissions from the permitted facilities shall not exceed the following limitations:

Emission Point ID	Pollutant	Emission Rate
		lb/hr
F-14E - Abrasive Blaster	Particulate Matter	0.1

Emission Point ID	Pollutant	Emission Rate	
		lb/hr	TPY
F-16E - Internal Spray Booth	Volatile Organic Compounds (VOC)	3.00	0.20
	Particulate Matter (PM)	0.10	0.10

Potential HAPs which may be included in bondliner ingredients include: dimethyl formamide, ethyl benzene, formaldehyde, hexane, methanol, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), methylene diphenyl diisocyanate (MDI), toluene, toluene diisocyanate (TDI), trichlorobenzene-1,2,4, xylene, and chromium or lead compounds. No specific VOC-HAP shall be emitted in a quantity greater than 2.0 lb/hr.

Emission Point	Pollutant	Emission Rate	
		lb/hr	TPY
F-18E - Paint Spray Booth	Volatile Organic Compounds (VOC)	3.00	0.50
	Particulate Matter (PM)	0.10	0.10

Potential HAPs which may be included in paint ingredients include: dimethyl formamide, ethyl benzene, formaldehyde, hexane, methanol, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), methylene diphenyl diisocyanate (MDI), toluene, toluene diisocyanate (TDI), trichlorobenzene-1,2,4, xylene, and chromium or lead compounds. No single HAP species shall be emitted in a quantity greater than 2.0 lb/hr. If other HAPs are used, notification to the Division of Air Quality shall be made within 30 days.

Emission Point	Pollutant	Emission Rate	
		lb/hr	TPY
F-17E - Paint Dry Room	Volatile Organic Compounds (VOC)	0.3	0.05
	Particulate Matter (PM)	0.01	0.01

Potential HAPs which may be included in paint ingredients include: dimethyl formamide, ethyl benzene, formaldehyde, hexane, methanol, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), methylene diphenyl diisocyanate (MDI), toluene, toluene diisocyanate (TDI), trichlorobenzene-1,2,4, xylene, and chromium or lead compounds. No single HAP species shall be emitted in a quantity greater than 2.0 lb/hr. If other HAPs are used, notification to the Division of Air Quality shall be made within 30 days.
[45CSR13, R13-1047, A.1]

5.2. Monitoring Requirements

5.2.1. None.

5.3. Testing Requirements

5.3.1. To determine compliance with the emission limitation as set forth in Requirement 5.1.1 above, test(s) shall be conducted in accordance with Requirements 3.3.1 and 3.3.2 contained herein.
[45CSR§30-5.1.c & 45CSR13, R13-2037, B.2]

5.4. Recordkeeping Requirements

5.4.1. For the purpose of determining compliance with emission limitations set forth in Requirements 5.1.1 (Emission Point 2-9E), 5.1.5 (Emission Point F-9E), 5.1.6 (Emission Point F-5E), 5.1.7 (Emission Points F-16E and F-18E) above, the permittee shall maintain monthly and yearly records. Compliance with the hourly emission rates shall be determined using the average hourly emission rate for each month. Compliance with the annual emission rates shall be determined using a rolling yearly total. A rolling yearly total shall mean the total emission rates emitted at any given time for the previous twelve (12) consecutive calendar months. Said records shall be maintained in a manner similar to: 1) Attachment A of the Permit R13-2037A (Monthly Usage/ VOC Emissions/ PM Emissions Report) and shall include types and amounts of coating materials sprayed each month (in gallons), hours of operation, VOC content (in lbs VOC/gal), VOC emissions (in lbs and in lbs/hr) per each coating, PM content (in lbs PM/gal), PM emissions (in lbs and lbs/hr) per each coating, and total of VOC and PM emissions (in lbs and in lbs/hr) for all coatings, 2) Attachment C of the Permit R13-2037A (Annual VOC Emissions/ PM Emissions Report) and shall include records of VOC and PM emissions (in lbs) on a monthly basis and total annual VOC and PM emissions, and 3) Attachment E of the Permit R13-2037A (Annual HAP emissions Report) and shall include records of VOC HAPs and PM HAPs annual emissions (in lbs/yr) and a sum of VOC HAPs and PM HAPs annual emissions. Said records shall be maintained on site by the permittee for a period of at least five (5) years. Said records shall be made available and certified upon request of the Director or his or her duly authorized representative.
[45CSR13, R13-2037, B.1, R13-0401, B.3, R13-1047, B.1 and 45CSR§30-5.1.c]

5.4.2. For the purpose of determining compliance with the PM_{10} limitations set forth in Requirements 5.1.4. (Emission Point 2-11E) the company shall maintain a filter replacement logsheet for the casebond filter bank. For the purpose of determining compliance with the PM limitations set forth in Requirements 5.1.1. (Emission Point 2-9E), 5.1.5. (Emission Point F-9E), 5.1.6. (Emission Point F-5E) and 5.1.7. (Emission Point F-16E and F-18E) the company shall maintain a filter replacement logsheet for the filter bank. An example logsheet is given in Attachment 1of the Permit R13-2246A (Filter Replacement Logsheet) and it includes filter change-out date and comments (about old/new filters, etc.). This logsheet shall be maintained on site for a period of five (5) years. Certified copies of the logsheet shall be made available to the Director or his duly-authorized representative upon request.
[45CSR13, R13-2246, B.3 and 45CSR§30-5.1.c]

5.4.3. For the purpose of determining compliance with the PM_{10} and VOC limitations set forth in Requirement 5.1.4., the company shall maintain daily coating usage records on spray booths 2-13S and 2-14S which collectively emit through emission point 2-11E. Daily and year-to-date (YTD) VOC emissions shall be calculated on a monthly basis using these records. Because PM_{10} emissions after controls are relatively small, these emissions shall be calculated only once a year. Example logsheets are given in Attachment 2 of the Permit R13-2246A (Daily Spray Booth Logsheets) and for each booth include the following: date, program/contract, start time, end time, number of units sprayed, hours operated, grams sprayed per unit, total daily usage (in lb/day), peak hourly usage (in lb/hr), year-to-date usage (in lbs). These logsheets shall be maintained on site for a period of five (5) years. Certified copies of the logsheets shall be made available to the Director or his duly-authorized representative upon request.
[45CSR13, R13-2246, B.4]

5.4.4. For the purpose of determining compliance with the emission limitations set forth in Requirement 5.1.4, the company shall maintain a daily record of batch production. These records shall be used to calculate exhaust hood (Emission Point 2-10E) and drying oven (Emission Point 2-12E) VOC emissions. Because the VOC emissions are relatively small, these emissions shall be calculated only once a year. Example logsheets (Daily_and YTD Batch Count Sheets) are given in Attachment 3 of the Permit R13-2246A, and include for each Hellfire Cases, Hellfire Rods (Mixing), Hellfire Rods (Dip Coating), Predator Cases, SFW Cases and TOW-2 Cases the following information: record date, number of batches daily and number of batches year-to-date for Formvar or Butvar Stock Solution (FSS/ BSS), Neoprene Stock Solution (NSS), Phenolic Resin Stock Solution (PRS), Formar or Butvar Lacquer (FL/BL), Neoprene Lacquer (NL), MEK

for wipe cleaning nozzles (MEK), Spray Gun Cleanup with NPB and/or Spray Gun Cleanup with Toluene/Ethanol (60/40). These logsheet shall be maintained on site for a period of five (5) years. Certified copies of the logsheets shall be made available to the Director or his duly-authorized representative upon request.
[45CSR13, R13-2246, B.5]

5.4.5. As per Requirement 5.4.1 and 5.4.3 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]

5.4.6. To demonstrate compliance with the Emission Point F-17E VOC emission limit set forth in Requirement 5.1.7, the permittee shall perform monthly calculations based on coating usage records (as per Requirement 5.4.1) for the coating booth F-23S (Emission Point F-16E) and paint spray booth F-25S (Emission Point F-18E). **[45CSR§30-5.1.c]**

5.4.7. To demonstrate compliance with the Emission Point F-14E PM emission limit set forth in Requirement 5.1.7, and also to reduce PM emissions from the Emission Point F-6E, the permittee shall conduct an annual preventative maintenance inspection / cleaning / replacement / refurbishment of the bags, bag connection, and dust hoppers, as appropriate, of the baghouses at each emission point specified, in order to ensure proper operation of the Cyclone Dust Collectors F-4C and F-9C. Records shall be maintained on site stating the date and time of each baghouse's annual preventative maintenance activity, the results of the annual preventative maintenance activity, and all corrective actions taken.
[45CSR§30-5.1.c]

5.5. Reporting Requirements

5.5.1. None.

5.6. Compliance Plan

5.6.1. None.

6.0 Loading/Inspection/Final Assembly Requirements (Plant 1 (Group 006) and Plant 2 (Group 00J))

6.1. Limitations and Standards

6.1.1. Emissions to the atmosphere from each paint spray booth shall not exceed the following emission rates:

Source ID	Emission Point ID	VOC Emission Rates		Particulate Matter Emission Rates	
		lb/hr	TPY	lb/hr	TPY
6-4S Paint Spray Booth	6-2E	1	2.01	0.1	0.1

AREA	Emission Point ID	VOC Emission Rates		Particulate Matter Emission Rates		Hazardous Air Pollutants	
		lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Paint Spray Booth [6-6S]	6-4E	3.00	4.35	3.00	0.10	1.90	2.00
Paint Spray Booth [6-7S]	6-5E						
Paint Spray Booth [6-8S]	6-6E						
Paint Spray Booth [6-9S]	6-7E						

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, R13-1782, A.1 and 45CSR13, R13-1798, A.1]

6.1.2 The minimum particulate collection efficiency of the filters used in the spray booth exhaust stack shall be 90% (Control Device ID 6-1C, 6-2C, 6-3C, 6-4C, 6-5C - Emission Points 6-2E, 6-4E, 6-5E, 6-6E, 6-7E).
[45CSR13, R13-1782, A.2. and 45CSR13, R13-1798, A.3]

6.1.3 Coatings to be utilized shall comply with 45CSR27.
No coating or solvent containing any hazardous air pollutant, as defined by West Virginia Legislative Rule 45CSR13, Section 15.1 and listed in Table 45-13A or any toxic air pollutant (TAP), as defined by West Virginia Legislative Rule 45CSR27, Section 2.10, shall be used without prior approval of the Director of the Division of Air Quality.
[45CSR13, R13-1782, A.3 and 45CSR13, R13-1798, A.4 and 5]

6.1.4 For the purpose of determining compliance with the minimum efficiency limit as set forth in Requirement 6.1.2. 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, R13-1782, B.3 and 45CSR13, R13-1798, B.3]

6.1.5 For the purpose of determining compliance with Requirement 6.1.3, 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 accedence 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, R13-1782, B.4 and 45CSR13, R13-1798, B.4]

6.1.6 Emissions to the atmosphere from the Interior Coating Spray Line, Source J-4S, through Emission Point J-2E, located in Building 2011, shall be limited as follows:

Emission Point ID	Pollutant	Emission Limit	
		lb/hr	ton/yr
J-2E Interior Coating Spray Line - 2011	VOC	6	0.5
	HAP	2	0.5
	PM	No Hourly Limit	0.1

[45CSR13, R13-0401, A.5]

6.1.7 The following are the known HAPs to be emitted from the source:

Antimony Compounds
Chromium Compounds
Ethyl Benzene
Formaldehyde
Glycol Ethers
Hexane
Isocyanates (HDI, MDI, TDI)
Lead Compounds
Methanol
MIBK
Phenol
Styrene
Toluene
Xylene

Use of any surface coating 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 to be used and the HAP(s) contained therein within thirty (30) days of the initial use of the surface coating. Additionally, an MSDS sheet for the surface coating shall be supplied at this time to the Director.

b. An estimate of emissions associated with the use of the surface coating shall be determined and incorporated into the record keeping requirements contained herein.

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

For the purposes of this permit, surface coatings shall be defined as a material applied onto, or impregnated into, a substrate for protective, decorative, or functional purposes. 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, R13-1798, A.2]

6.1.8 The maximum number of painted units is 480 units per year. Compliance with the annual usage shall be determined using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of units painted at any given time for the previous twelve (12) consecutive months.
[45CSR13, R13-1798, A.6]

6.2. Monitoring Requirements

6.2.1. None.

6.3. Testing Requirements

6.3.1. To determine compliance with the emission limitations as set forth in Requirement 6.1.1 above test(s) shall be conducted in accordance with Requirements 3.3.1 and 3.3.2 contained herein.
[45CSR13, R13-1782, B.2 and 45CSR13, R13-1798, B.2]

6.4. Recordkeeping Requirements

6.4.1. For the purpose of determining compliance with emission limitations set forth in Requirement 6.1.1 (Emission Points 6-4E, 6-5E, 6-6E and 6-7E and VOC emission limits for Emission Point ID 6-2E) 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 each pollutant emitted at any given time for the previous twelve (12) consecutive calender months. Records shall be maintained in a manner as provided in Attachment A, B and C of this permit. Said records shall be maintained on site by the permittee for a period of at least five (5) years. Said records shall be made available and certified upon request of the Director or his or her duly authorized representative.
[45CSR13, R13-1782, B.1 and 45CSR13, R13-1798, B.1]

6.4.2. To determine compliance with the emission limits set forth in Requirement 6.1.6 (Emission Point J-2E), the permittee shall keep records of the hourly and annually emission rates. Compliance with the hourly emission rates shall be determined using the average hourly emission rate for each month. Compliance with the annual emission rates shall be determined using a rolling yearly total. A rolling yearly total shall mean the total emission rates emitted at any given time for the previous twelve (12) consecutive calender months. This information shall be kept on site for a period of five years and certified records shall be made available for inspection by the Director or a duly authorized representative of the Director upon request.
[45CSR13, R13-0401, B.3]

6.4.3. As per Requirement 6.4.1 and 6.4.2 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]

6.4.4. For the purpose of determining compliance with the PM_{10} limitations set forth in Requirements 6.1.1 (Emission Points 6-2E, 6-4E, 6-5E, 6-6E and 6-7E) and 6.1.6 (Emission Point J-2E) the company shall maintain a filter replacement logsheet for the Fabric Filters (filter change-out date and comments about old/new filters, etc.). An example logsheet is given in Attachment 1 to the Permit R13-2246A.
[45CSR§30-5.1.c]

6.5. Reporting Requirements

6.5.1. None.

6.6. Compliance Plan

6.5.1. None.

7.0 Mold Parts Cleanup Requirements (Plant 1 (Group 007) and Plant 2 (Group 00K))

7.1. Limitations and Standards

7.1.1. Heptane usage from the Mold Parts Wash Tanks, sources 10s (7-1S) and 11s (7-2S), in Building 151 and the Mold Parts Wash Tank, source 9s (K-3S), in building 8203, shall be limited to a combined total of 25,000 pounds per year (4,381.3 gallons).
[45CSR13, R13-0401, A.1]

7.1.2. The total combined heptane (VOC) emissions from sources 7-1S, 7-2S, and K-3S shall not exceed 12.5 tons per year.

Source ID	Emission Point ID	Heptane (VOC) Emission Limit, tons/yr
7-1S Parts Washer-151	7-1E	12.5
7-2S Parts Washer-151	7-2E	
K-3S Parts Washers-8203	K-1E	

[45CSR13, R13-0401, A.2]

7.1.3. The permittee may install the solvent recovery system, source K-5S in either Building 8203 or Building 151.
[45CSR13, R13-0401, A.3]

7.2. Monitoring Requirements

7.2.1. None.

7.3. Testing Requirements

7.3.1. None.

7.4. Recordkeeping Requirements

7.4.1. To determine compliance with heptane usage limits set forth in Requirement 7.1.1, the permittee shall keep records of the amount of heptane used using a rolling yearly total. A rolling yearly total shall mean the sum of the usage of heptane at any given time for the previous twelve (12) consecutive calender months. This information, shall be recorded in a manner that, at a minimum, contains the same information as Attachment A of the Permit R13-0401B (Heptane Usage in Buildings 151 and 8203): on a monthly basis record a yearly total of heptane usage for building 151 and for building 8203 (in gallons), and shall be kept on site for a period of five years and certified records shall be made available for inspection by the Director or a duly authorized representative of the Director upon request.
[45CSR13, R13-0401, B.1]

7.4.2. To determine compliance with the heptane (VOC) emission limit set forth in Requirement 7.1.2, a calculation shall be made utilizing the information required by Requirement 7.4.1 and information

contained in the material safety data sheet for heptane, assuming that 100 percent of all heptane used is emitted to the atmosphere. This information, shall be kept on site for a period of five years and certified records shall be made available for inspection by the Director or a duly authorized representative of the Director upon request.
[45CSR13, R13-0401, B.2]

7.5. Reporting Requirements

7.5.1. None.

7.6. Compliance Plan

7.6.1. None.

ATTACHMENT 1

HERCULES

Hercules Incorporated
Aerospace Products Group
Allegany Ballistics Laboratory
P. O. Box 210
Rocket Center, WV 26726
(304) 726-5000

December 19, 1986

Director
West Virginia Air Pollution Control Commission
1558 Washington Street, East
Charleston, West Virginia 25311

Attention: Mr. Steve Anderson

Dear Sir:

Construction Permit Application No. 898

This letter confirms the discussions on December 18, 1986, between Messrs. Carl Beard II and Steve Anderson of the West Virginia Air Pollution Control Commission (WVAPCC) and Messrs. Ted Rissell and Dave McBride of Hercules Incorporated/Allegany Ballistics Laboratory (HI/ABL) concerning the construction permit for a nitrate ester sparge facility.

HI/ABL will provide an emission control system on the air effluent stream, containing methylene chloride, from the nitrate ester sparge facility as a part of the construction package. This system will be operational at the start of facility sparging operations. The system will utilize a low temperature refrigeration system to condense and recover volatile organic chemicals (VOC) from the effluent stream. A design operating temperature of -40°F. will be used for the condenser. A copy of literature from Edwards Engineering Corporation, a potential recovery system supplier, is attached. The system will be designed and sized to achieve a minimum recovery of 80% of the VOC released by the sparging operation.

This unit is recognized as constituting a technology development and, as such, Hercules/ABL understands that system testing and documentation after start-up will be required to demonstrate degree of VOC recovery actually achieved. We would plan to measure system performance by material balance. The quantity of methylene chloride stripped from the nitrate ester solutions and the quantity recovered will be measured by weighing on a routine basis during any prescribed demonstration period.

Ancillary process items relating to process safety are currently in study and design. While these items will be part of the total system, they will not influence the VOC recovery operation or efficiency.

Very truly yours,

G. H. Moody
Vice President and Resident Manager

DAMcBride:beh(1993B)
Attachment

ATTACHMENT A

Alliant Techsystems, Inc.
ATK Missile Subsystems & Controls Division
057-00011 R13-1798B and R13-1782A

MATERIAL USAGE

Date	Material Name / ID	# Units Painted	VOC	Solids	Total HAP	Amount Used	Time Used	Total VOC	Total PM	Total HAP
			Content (lb/gal)			(gals)	(Hrs)	Emissions (lb/hr)		
Monthly Totals										
(For 6-4E, 6-5E, 6-6E, 6-7E) **Permit Limit:-**								3.00	3.00	1.90
(For 6-2E) **Permit Limit:-**								1.0	0.1	

ATTACHMENT B

Alliant Techsystems, Inc.
ATK Missile Subsystems & Controls Division
057-00011

12-MONTH ROLLING AVERAGES

Month	Emissions for R13-1798B			Emissions for R13- 1782A		#Units Painted
	VOC (tpm)	PM (tpm)	HAP (tpm)	VOC (tpm)	PM (tpm)	(Monthly total)
1	January					
2	February					
3	March					
4	April					
5	May					
6	June					
7	July					
8	August					
9	September					
10	October					
11	November					
12	December					
13	January					
14	February					
12-month rolling averages (tpy):						
Permit Limit (tpy):	4.35	0.10	2.00	2.01	0.1	480 units

ATTACHMENT C

Alliant Techsystems, Inc.
ATK Missile Subsystems & Controls Division
057-00011 R13-1798B

Speciated HAP Emissions

Month: _____ Year: _____		
Hazardous Air Pollutant:	Monthly HAP Emissions :	Yearly* HAP Emissions (TPY):
Permit Limit is 2.00 TPY on an aggregate basis		
Antimony Compounds		
Chromium Compounds		
Ethylbenzene		
Formaldehyde		
Glycol Ethers		
n-Hexane		
HDI		
Lead Compounds		
MDI		
Methanol		
Methyl Isobutyl Ketone (MIBK)		
Phenol		
Styrene		
TDI		
Toluene		
Xylene		
Aggregate HAP Emissions		

*Calculated on Twelve (12) Month Rolling Total

ATTACHMENT D

Alliant Techsystems, Inc.
ATK Missile Subsystems & Controls Division
057-00011 R13-1798B

FILTER MAINTENANCE:

Date Filter Checked				Date Filter Changed	Filter ID Changed	Comments:
Filter Booth 6-2C	Filter Booth 6-3C	Filter Booth 6-4C	Filter Booth 6-5C			