



NORTHROP GRUMMAN

Northrop Grumman Corporation
Innovation Systems

Defense Systems Group
Alliant Techsystems Operations LLC
ABL Operations
210 State Route 956
Rocket Center, WV 26726

**December 10, 2018
Overnight Delivery**

Mr. Fred Durham, Director
WVDEP - Division of Air Quality
601 57th Street
Charleston, WV 25304

**Alliant Techsystems Operations LLC
ATK Missile Subsystems & Components Division
Allegany Ballistics Laboratory
WVDAQ ID# 057-00011**

REFERENCE: Permit R30-05700011-2014 Part 2 of 3 (Issued June 17, 2014)

SUBJECT: Title V Permit Renewal Application

Dear Director Durham:

NGIS – Alliant Techsystems Operations LLC – Allegany Ballistics Laboratory hereby submits the enclosed application for renewal of the referenced Title V permit. We believe the enclosed renewal application contains the appropriate elements as indicated by the DAQ's "Title V Permit Application Checklist for Administrative Completeness".

Should you have additional questions regarding this submittal please contact Sue Ellen Foor, Environmental Engineer, at 304-726-5506 or sueellen.foor@ngc.com; or Jill Clayton, Environmental Engineer, at 304-726-7984 or jill.clayton@ngc.com.

Respectfully,

Sue Ellen Foor
Environmental Engineer
NGIS-Alliant Techsystems Operations LLC
Allegany Ballistics Laboratory

Enclosures

Table of Contents

Document	Paper or Electronic Submittal?
Cover Letter	Paper / Electronic on thumb drive
Title V Permit Application Checklist	Paper
Title V Permit Renewal Application Form	Electronic on thumb drive (Paper – Certification Signature Page)
Attachment A: Site Location Map	Paper / Electronic on thumb drive
Attachment B: Plot Plan	Paper / Electronic on thumb drive
Attachment C: Process Flow Diagrams	Paper / Electronic on thumb drive
Attachment D: Title V Equipment Table	Paper / Electronic on thumb drive
Attachment E: Emission Unit Forms	Paper / Electronic on thumb drive
Attachment G: Air Pollution Control Device Forms	Paper / Electronic on thumb drive
Attachment H: Compliance Assurance Monitoring (CAM) Form	Paper / Electronic on thumb drive
Facility Information	Paper / Electronic on thumb drive
Process Description with NAICS	Paper / Electronic on thumb drive
List of Active Permits	Paper / Electronic on thumb drive
Facility Wide Emissions Summary	Paper / Electronic on thumb drive
List of Insignificant Activities	Paper / Electronic on thumb drive

**TITLE V PERMIT APPLICATION CHECKLIST
FOR ADMINISTRATIVE COMPLETENESS**

A complete application is demonstrated when all of the information required below is properly prepared, completed and attached. The items listed below are required information which must be submitted with a Title V permit application. Any submittal will be considered incomplete if the required information is not included.*

<input checked="" type="checkbox"/>	Two signed copies of the application (at least one <u>must</u> contain the original “ <i>Certification</i> ” page signed and dated in blue ink)
<input checked="" type="checkbox"/>	Correct number of copies of the application on separate CDs or diskettes, (i.e. at least one disc per copy)
<input checked="" type="checkbox"/>	*Table of Contents (needs to be included but not for administrative completeness)
<input checked="" type="checkbox"/>	Facility information
<input checked="" type="checkbox"/>	Description of process and products, including NAICS and SIC codes, and including alternative operating scenarios
<input checked="" type="checkbox"/>	Area map showing plant location
<input checked="" type="checkbox"/>	Plot plan showing buildings and process areas
<input checked="" type="checkbox"/>	Process flow diagram(s), showing all emission units, control equipment, emission points, and their relationships
<input type="checkbox"/>	Identification of all applicable requirements with a description of the compliance status, the methods used for demonstrating compliance, and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the source is not in compliance
<input checked="" type="checkbox"/>	Listing of all active permits and consent orders (if applicable)
<input checked="" type="checkbox"/>	Facility-wide emissions summary
<input checked="" type="checkbox"/>	Identification of Insignificant Activities
<input checked="" type="checkbox"/>	ATTACHMENT D - Title V Equipment Table completed for all emission units at the facility except those designated as insignificant activities
<input checked="" type="checkbox"/>	ATTACHMENT E - Emission Unit Form completed for each emission unit listed in the Title V Equipment Table (ATTACHMENT D) and a Schedule of Compliance Form (ATTACHMENT F) for all requirements for which the emission unit is not in compliance
<input checked="" type="checkbox"/>	ATTACHMENT G - Air Pollution Control Device Form completed for each control device listed in the Title V Equipment Table (ATTACHMENT D)
<input checked="" type="checkbox"/>	ATTACHMENT H – Compliance Assurance Monitoring (CAM) Plan Form completed for each control device for which the “Is the device subject to CAM?” question is answered “Yes” on the Air Pollution Control Device Form (ATTACHMENT G)
<input checked="" type="checkbox"/>	General Application Forms signed by a Responsible Official
<input type="checkbox"/>	Confidential Information submitted in accordance with 45CSR31



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant (Alliant Techsystems Operations LLC), 2. Facility Name (Allegany Ballistics Laboratory), 3. DAQ Plant ID No. (057-00011), 4. Federal Employer ID No. (274026908), 5. Permit Application Type (Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees (~1,350), 9. Governmental Code (Facility is owned by the Navy and operated by Alliant Techsystems), 10. Business Confidentiality Claims.

11. Mailing Address		
Street or P.O. Box: 210 State Route 956		
City: Rocket Center	State: WV	Zip: 26726-3548
Telephone Number: (304) 726-5506	Fax Number: (304) 726-5562	

12. Facility Location		
Street: 210 State Route 956	City: Rocket Center	County: Mineral
UTM Easting: 686.47 km	UTM Northing: 4,381.25 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: Turn left off of WV State Route 956 onto plant access road just after crossing bridge into West Virginia from Maryland.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). MD, PA, VA	
Is facility located within 100 km of a Class I Area ¹ ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the area(s). Dolly Sods, Otter Creek, Shenandoah National Park	
If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input type="checkbox"/> No		
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Michael McGregor		Title: V.P. & Site Manager - ABL Operations
Street or P.O. Box: 210 State Route 956		
City: Rocket Center	State: WV	Zip: 26726-3548
Telephone Number: (304) 726-5200	Fax Number: (304) 726-5183	
E-mail address: michael.mcgregor@ngc.com		
Environmental Contact: Sue Ellen Foor OR Jill Clayton		Title: Environmental Engineer
Street or P.O. Box: 210 State Route 956		
City: Rocket Center	State: WV	Zip: 26726-3548
Telephone Number: (304) 726-5506 Or (304) 726-7984	Fax Number: (304) 726-5562	
E-mail address: sueellen.foor@ngc.com OR jill.clayton@ngc.com		
Application Preparer: Sue Ellen Foor / Jill Clayton		Title: Environmental Engineer
Company: Alliant Techsystems Operations LLC Allegany Ballistics Laboratory (ABL)		
Street or P.O. Box: 210 State Route 956		
City: Rocket Center	State: WV	Zip: 26726-3548
Telephone Number: (304) 726-5506 OR (304) 726-7984	Fax Number: (304) 726-5562	
E-mail address: sueellen.foor@ngc.com OR jill.clayton@ngc.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Rocket Motor Manufacture	Rocket motors, metal rocket cases, composite rocket cases	336415	3764
F-22 Composites Manufacturing	Pivot shafts and obturator plates for F-22	336413	3728
Electronic Fuzing and Ammunition	Medium caliber ammunition (not loaded), proximity switches, and multiple fuze products for DoD	332995	3489

NOTE: Part 2 of this permit covers only the composites and metal fabrication areas.

Provide a general description of operations.

Naval Industrial Reserve Ordnance Plant (NIROP)/Allegany Ballistics Laboratory (ABL) is a facility which is operated by Northrup Grumman Innovation Systems (NGIS) (headquartered in Dulles, VA) under the company name Alliant Techsystems Operations LLC and business unit Missile Products Group. The majority of the facility is owned by the U.S. Navy and is operated by NGIS under a facilities use contract (~1530 acres designated as Plant 1). 57 acres is owned and operated by NGIS and is designated as Plant 2. In 2017, development began on an approximately 41 acre area designated as Plant 3 which will be used for production of GMLRS rocket motors. Approximately 500 acres of Plant 1 are developed. The remaining acreage is undeveloped at this time. All property is contiguous with internal roads to reach each separate area.

Operations at the plant include:

- metal fabrication of rocket motor and warhead cases;
- metal fabrication of tank ammunition training rounds;
- manufacture of composite material rocket motor and warhead cases;
- manufacture of composite material aircraft components;
- preparation of cases for addition of explosives;
- mixing, casting, curing, and associated operations with propellants and explosives;
- static firing of rocket motors;
- open burning of waste propellants and explosives;
- development and production of laser firing devices;
- analytical and research & development laboratories;
- explosive loading and packing operations for tank ammunition;
- x-ray testing; and
- maintenance and utility operations.

In addition, to these operations, the site is also home to the Robert C. Byrd Institute for Machining and office space for IBM.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input checked="" type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input checked="" type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input checked="" type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input checked="" type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

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.

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.

40CFR63, Subpart GGGGG – National Emission Standards for Site Remediation. The facility currently has one site under remediation for groundwater contamination. This site is a Superfund site and is thus exempt from the MACT requirements. The facility also has a second site, which will begin remediation as part of a RCRA corrective action program within the next year. This second site would also be exempted since it is being conducted under a RCRA corrective action permit. In addition, neither site would generate emissions of more than 1 megagram per year of HAPs.

40CFR63, Subpart P P P P P – National Emission Standards for Hazardous Air Pollutants from Engine Test Sells/Standards (05/27/03)- This rule applies to the X-Range Static Rocket Motor Firing facility (Group 00Q). However, per 40CFR63.9290(b) & (d)(2) it is exempt from the requirements of this Subpart due to facility was existing source on May 14, 2002 (partially modified in summer of 2002, Source Q-3S) and also, it is used exclusively for rocket motors testing.

40CFR63, Subpart W W W W W – 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.

Permit Shield

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

See above.

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

45CSR6-3.1. & 3.2. Open burning & open burning exemptions.

40CFR61 Subpart M - 61.145, 61.148, and 61.150 Asbestos.

45CSR4-3.1. [State-Enforceable only.] Odors.

45CSR11-5.2. Standby plan for reducing emissions.

WV Code § 22-5-4(a)(14) Emission inventory.

40 CFR Part 82, Subpart F Ozone-depleting substances.

40 CFR Part 68 Risk Management Plan.

40CFR63, Subpart GG – National Emission Standards for Aerospace Manufacturing Operations.

45CSR7-3.7. Visible emissions from any storage structures.

45CSR7-5.1. & 5.2. Fugitive particulate matter.

45CSR7-4.12. Stack flow straightening devices or a sufficient vertical run.

45CSR§30-5.1.c. Monthly visible emissions checks.

WV Code § 22-5-4(a)(15) and 45CSR13 Stack testing.

45CSR§30-5.1.c.2.A. Monitoring information.

45CSR§30-5.1.c.2.B. Retention of records.

45CSR§§30-4.4. and 5.1.c.3.D. Responsible official.

45CSR31, 45CSR§30-5.1.c.3.E. Confidential business information.

45CSR§30-8. Certified emissions statement.

45CSR§30-5.3.e. Compliance certification.

45CSR§30-5.1.c.3.A. Semi-annual monitoring reports.

45CSR§30-5.7. Emergencies.

45CSR§30-5.1.c.3. Deviations.

45CSR§30-4.3.h.1.B. New applicable requirement.

45CSR§42-3.1. Reporting of greenhouse gas emissions above the *de minimis* threshold

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

- 45CSR6-3.1. & 3.2. Open burning & open burning exemptions – Compliance is demonstrated by Condition#s 3.1.1 & 3.1.2.
- 40CFR61 Subpart M - 61.145, 61.148, and 61.150 Asbestos – Compliance is demonstrated by Condition# 3.1.3.
- 45CSR4-3.1.; 45CSR§30-5.1.c. Odors – Compliance is demonstrated by Condition#s 3.1.4 & 3.4.3.
- 45CSR11-5.2. Standby plan for reducing emissions – Compliance is demonstrated by Condition# 3.1.5.
- WV Code § 22-5-4(a)(14) Emission inventory – Compliance is demonstrated by Condition# 3.1.6.
- 40 CFR Part 82, Subpart F Ozone-depleting substances – Compliance is demonstrated by Condition# 3.1.7.
- 40 CFR Part 68 Risk Management Plan – Compliance is demonstrated by Condition# 3.1.8.
- 40CFR63, Subpart GG – National Emission Standards for Aerospace Manufacturing Operations – Compliance is demonstrated by Condition#s 3.1.9; 3.2.4; 3.4.5-3.4.6; 3.5.10.
- 45CSR7-3.7; 45CSR7-5.1. & 5.2.; 45CSR§30-5.1.c. Visible emissions from any storage structures and Fugitive particulate matter– Compliance is demonstrated by Condition#s 3.1.10; 3.1.11; 3.2.1; 3.2.2; 3.2.3; 3.4.7
- 45CSR§30-5.1.c. Visible emissions checks – Compliance is demonstrated by Condition# 3.2.1; 3.4.4; 3.5.11
- 45CSR7-4.12. Stack flow straightening devices or a sufficient vertical run – Compliance is demonstrated by Condition#s 3.1.10.
- WV Code § 22-5-4(a)(15) and 45CSR13 Stack testing – Compliance is demonstrated by Condition#s 3.1.11; 3.3.1-3.3.4.
- 45CSR§30-5.1.c.2.A. Monitoring information – Compliance is demonstrated by Condition# 3.4.1.
- 45CSR§30-5.1.c.2.B. Retention of records – Compliance is demonstrated by Condition# 3.4.2.
- 45CSR§§30-4.4 and 5.1.c.3.D. Responsible official – Compliance is demonstrated by Condition# 3.5.1.
- 45CSR31, 45CSR§30-5.1.c.3.E. Confidential business information– Compliance is demonstrated by Condition# 3.5.2.
- 45CSR§30-8. Certified emissions statement – Compliance is demonstrated by Condition# 3.5.4.
- 45CSR§30-5.3.e. Compliance certification – Compliance is demonstrated by Condition# 3.5.5.
- 45CSR§30-5.1.c.3.A. Semi-annual monitoring reports – Compliance is demonstrated by Condition# 3.5.6.
- 45CSR§30-5.7. Emergencies – Compliance is demonstrated by Condition# 3.5.7.
- 45CSR§30-5.1.c.3. Deviations – Compliance is demonstrated by Condition# 3.5.8.
- 45CSR30-4.3.h.1.B. New applicable requirement – Compliance is demonstrated by Condition# 3.5.9.
- 45CSR§42-3.1. Reporting of greenhouse gas emissions above the *de minimis* threshold - Compliance is demonstrated by Conditions# 3.1.12; 3.5.12.

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit <i>(if any)</i>
R13-1797A	01/30/2002	
R13-2037A	07/26/2001	
R13-2579A	10/17/2005	
R13-2680	01/04/2007	
R13-2754	08/12/2008	
	/ /	
	/ /	

22. Inactive Permits/Obsolete Permit Conditions

Permit Number	Date of Issuance	Permit Condition Number
	MM/DD/YYYY	
	/ /	

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	59.97
Nitrogen Oxides (NO _x)	41.31
Lead (Pb)	1.322
Particulate Matter (PM _{2.5}) ¹	4.88
Particulate Matter (PM ₁₀) ¹	12.34
Total Particulate Matter (TSP)	23.22
Sulfur Dioxide (SO ₂)	33.67
Volatile Organic Compounds (VOC)	144.75
Hazardous Air Pollutants ²	Potential Emissions
Acetonitrile	0.27
Antimony compounds*	2.0E-04
Benzene	0.37
Cadmium compounds*	6.0E-04
Chloroform	0.096
Chromium*	8.0E-04
Chromium compounds (not identified)*	0.136
Cobalt*	1.7E-04
Diethyl phthalate	0.85
Ethyl benzene	0.62
Formaldehyde	0.029
Glycol ether compounds	0.06
Hexane	0.80
Hydrochloric Acid	4.40
Lead *	1.322
Lead compounds*	5.0E-05
Mercury*	2.0E-04

Methanol	1.81
Methyl isobutyl ketone	3.73
Methylene chloride	1.995
Nickel*	2.0E-04
Phenol	0.16
Strontium chromate*	0.0012
Toluene	30.89
Trichloroethylene	0.125
Xylene	5.29
Zinc chromate*	1.2E-05
Other (not specified)	0.1
Total HAPs	53.06
Regulated Pollutants other than Criteria and HAP	Potential Emissions
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input checked="" type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input checked="" type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input checked="" type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input checked="" type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: <u>Gasoline and diesel small storage tanks – VOC < 1.0 lb/hr & <0.1 tpy</u> <u>Gasoline and diesel fuel dispensing pumps – VOC < 1.0 lb/hr & <0.1 tpy</u> _____ _____ _____ _____ _____ _____ _____

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<input checked="" type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input checked="" type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input checked="" type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input checked="" type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input checked="" type="checkbox"/>	32. Humidity chambers.
<input checked="" type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input checked="" type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input checked="" type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input checked="" type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input checked="" type="checkbox"/>	52. Steam leaks.
<input checked="" type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F .
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G .
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H .

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name: Gerald Brode

Title: V.P. & Site Manager

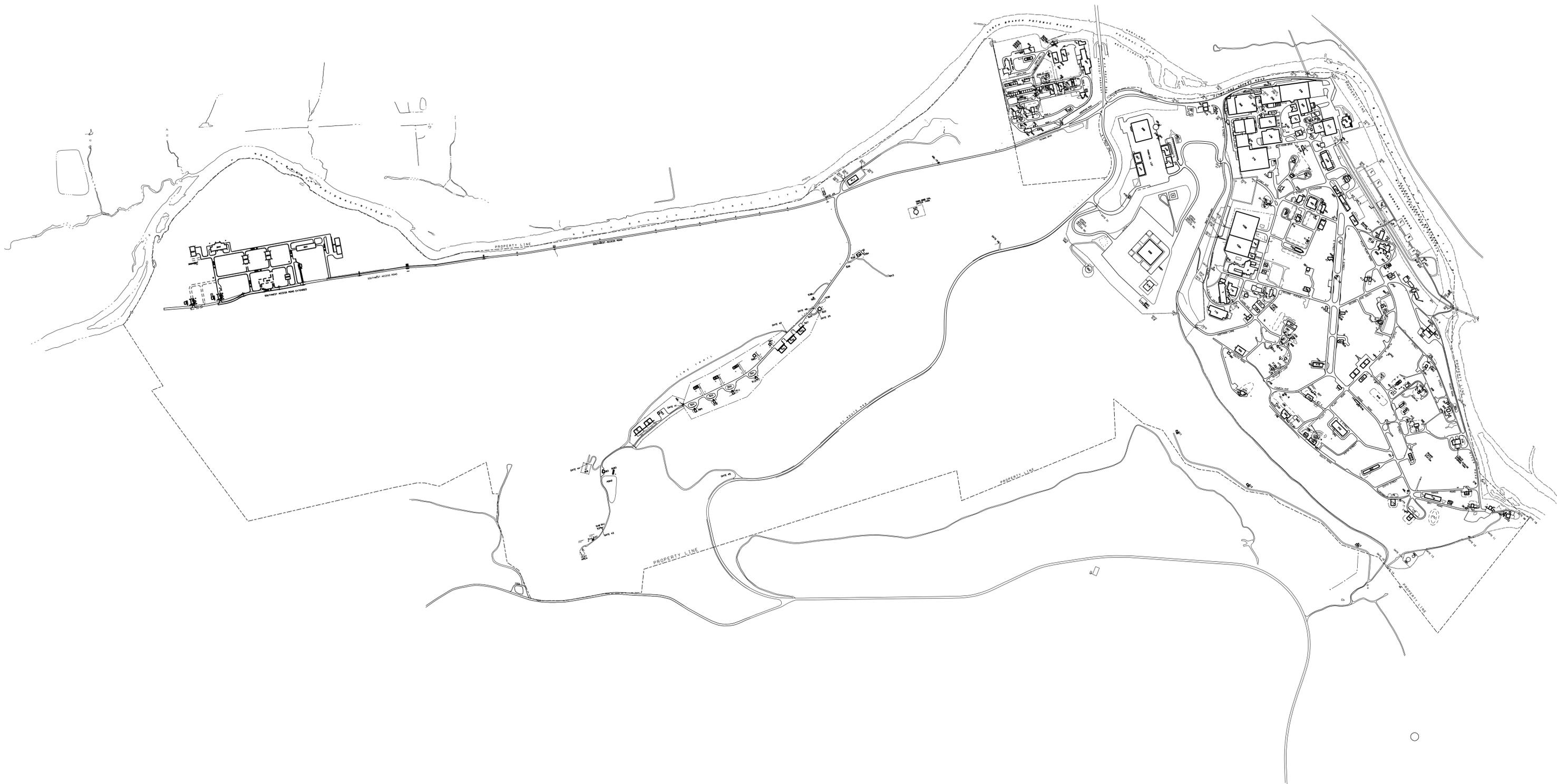
Responsible official's signature:

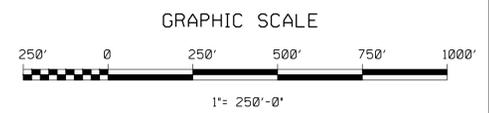
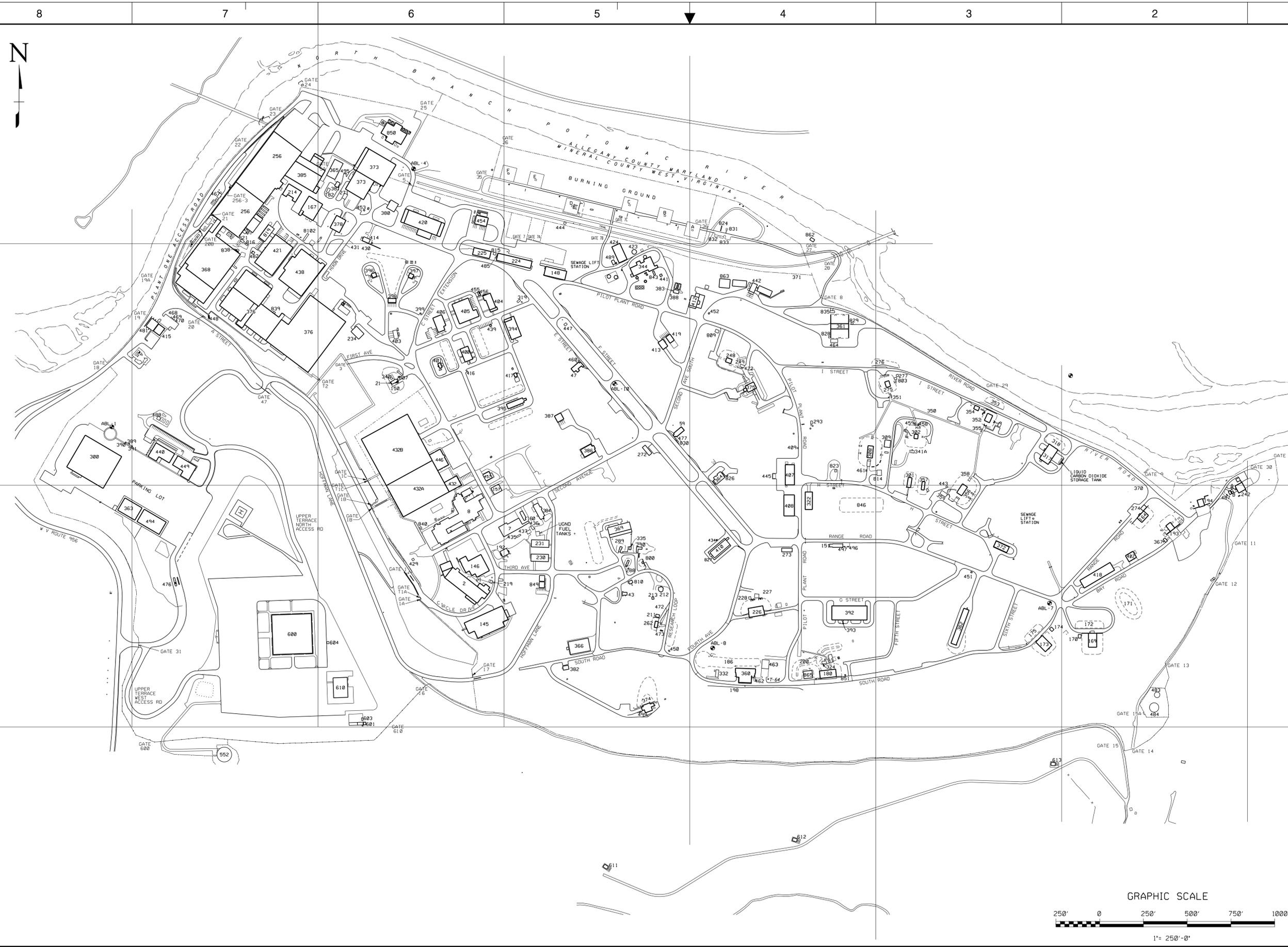
Signature: _____ Signature Date: _____
 (Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/dag, requested by phone (304) 926-0475, and/or obtained through the mail.

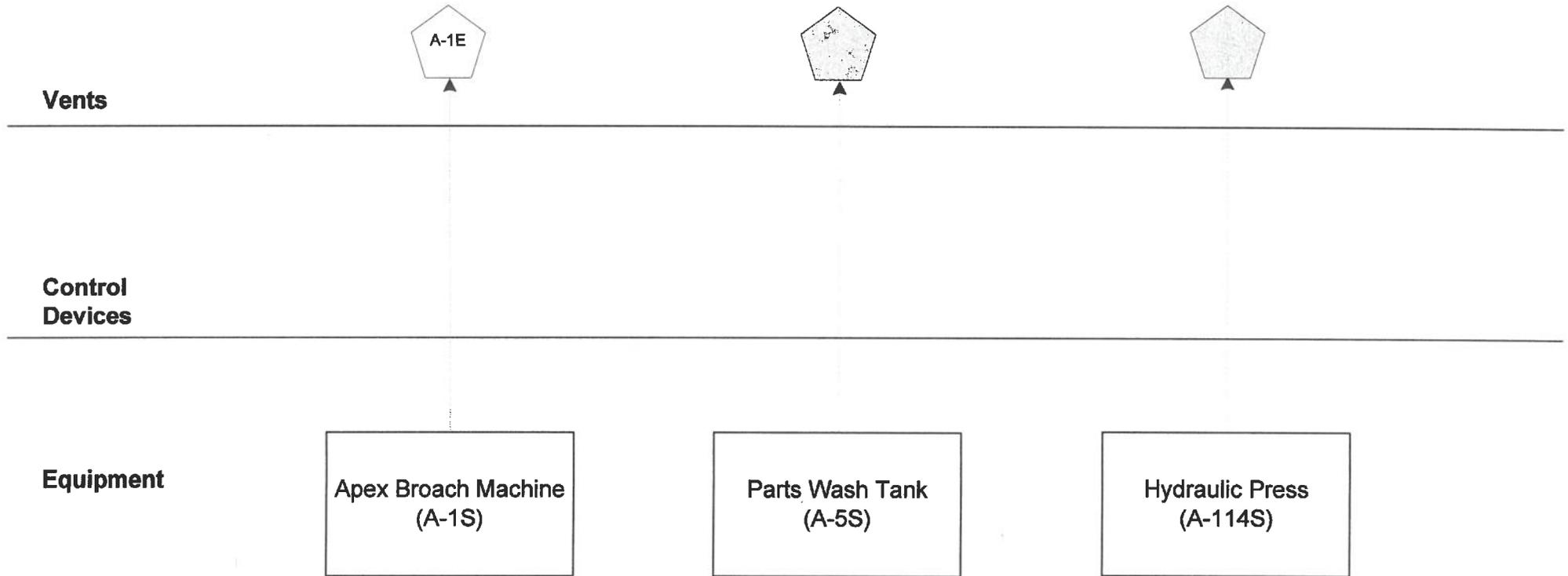




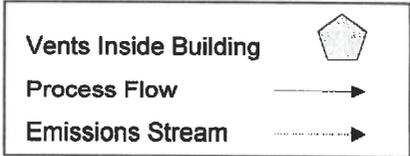
<p>SCALE: 1" = 250'-0"</p> <p>PROJ. NO. _____</p> <p>DRAWING PKG. _____</p> <p>BUILDING NO. _____</p> <p>BASE PLT1 _____</p> <p>CONTRACTOR DRAWING NO. _____</p> <p>SIZE: D _____</p> <p style="font-size: 24pt; font-weight: bold;">1-112-AB</p>	<p style="text-align: center;">PLANT 1 GENERAL MAP PLAN AND BUILDING LIST</p> <p style="text-align: center;">INTERPRET THIS DRAWING IN ACCORDANCE WITH DOD-STD-100</p>															
<p>Orbital ATK 210 STATE ROUTE 956 ROCKET CENTER, WV 26726</p>																
<p>DRAWN BY: DRB CHECKED BY: DRB ENGR: DRB DES SUPV: DRB AREA SUPV: DRB SAFETY: DRB</p>																
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REVISIONS	BY	DATE														

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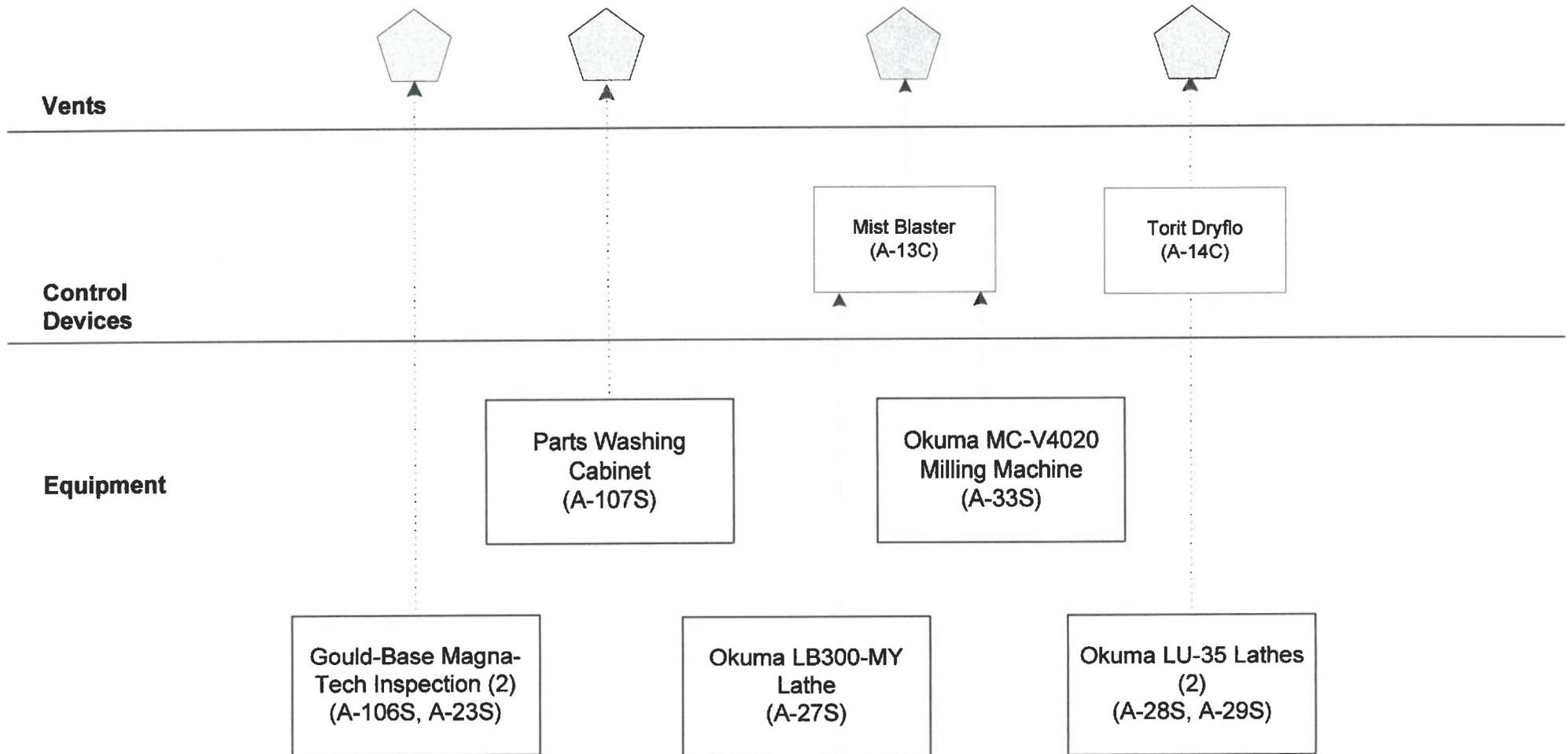
Building 167 Process Flow (Metal Fabrication)



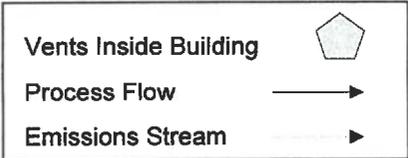
Allegany Ballistics Laboratory
Operated by Alliant Techsystems
Operations LLC
Rocket Center, WV 26726



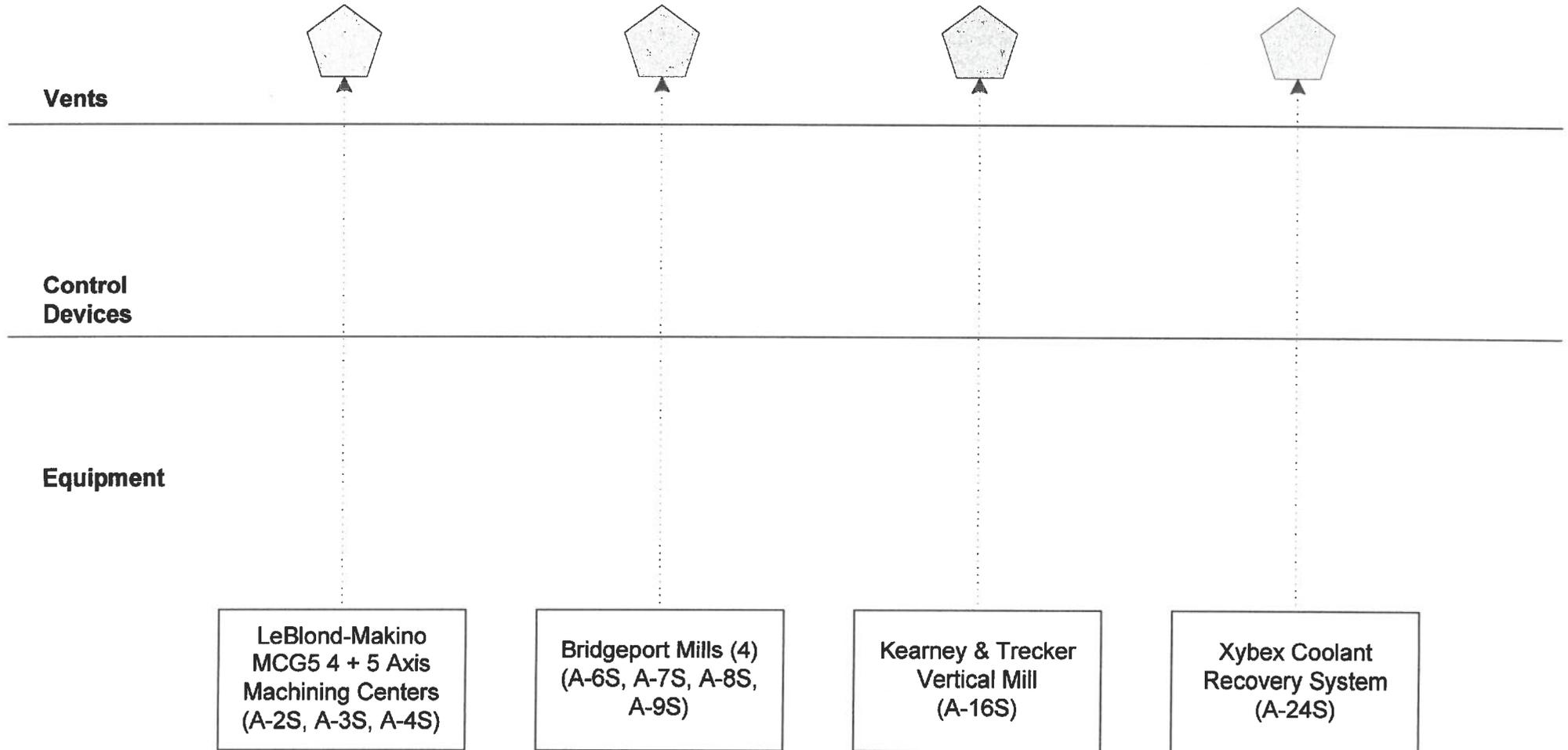
Building 376-A Process Flow (Metal Fabrication - Case Base Manufacture)



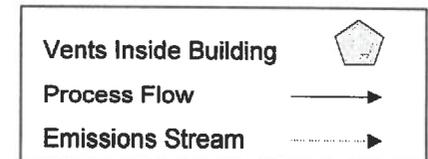
Allegany Ballistics Laboratory
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 Rocket Center, WV 26726



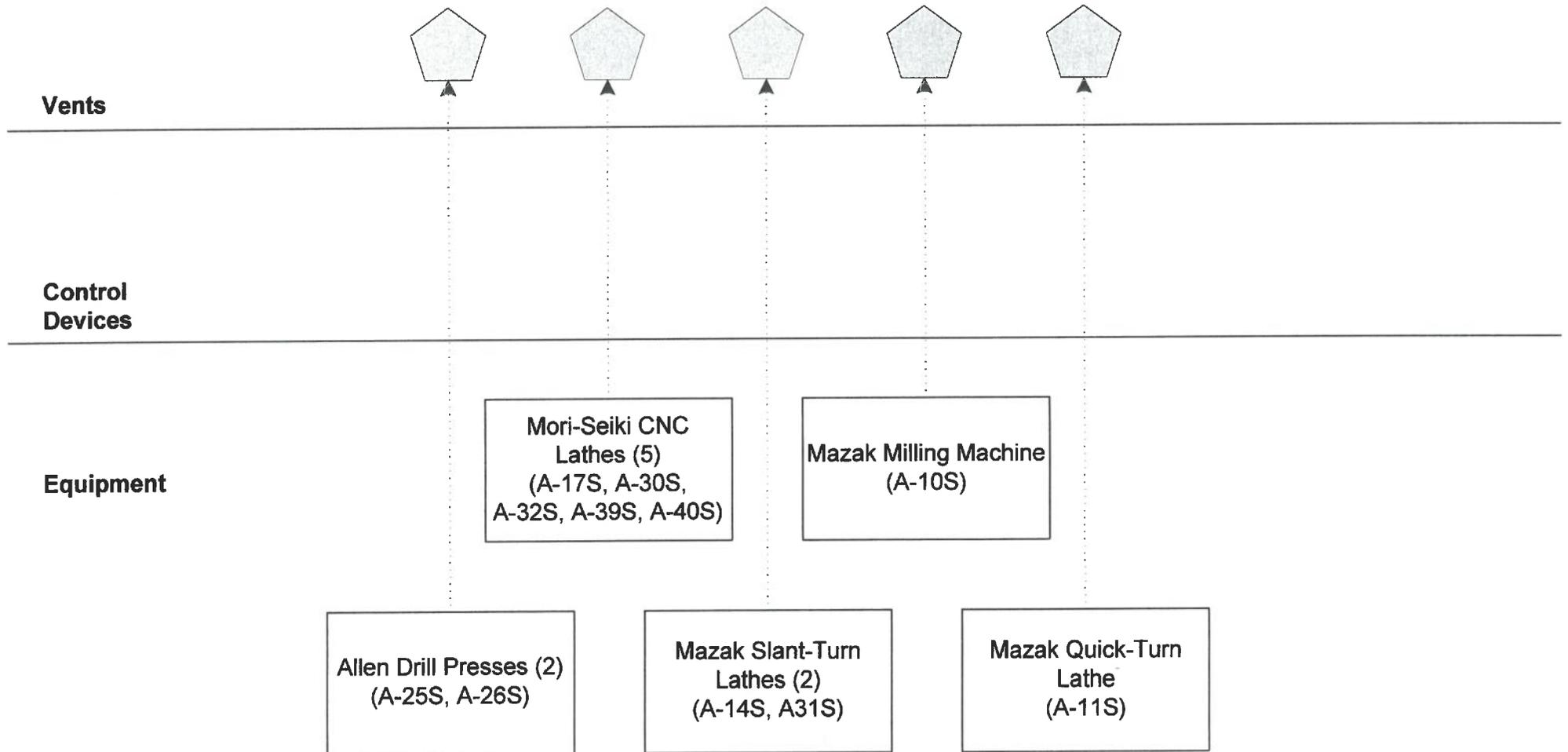
Building 376-N Process Flow (Metal Fabrication - Aerospace Area)



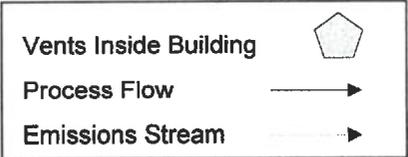
Alegany Ballistics Laboratory
Operated by Alliant Techsystems
Operations LLC
Rocket Center, WV 26726



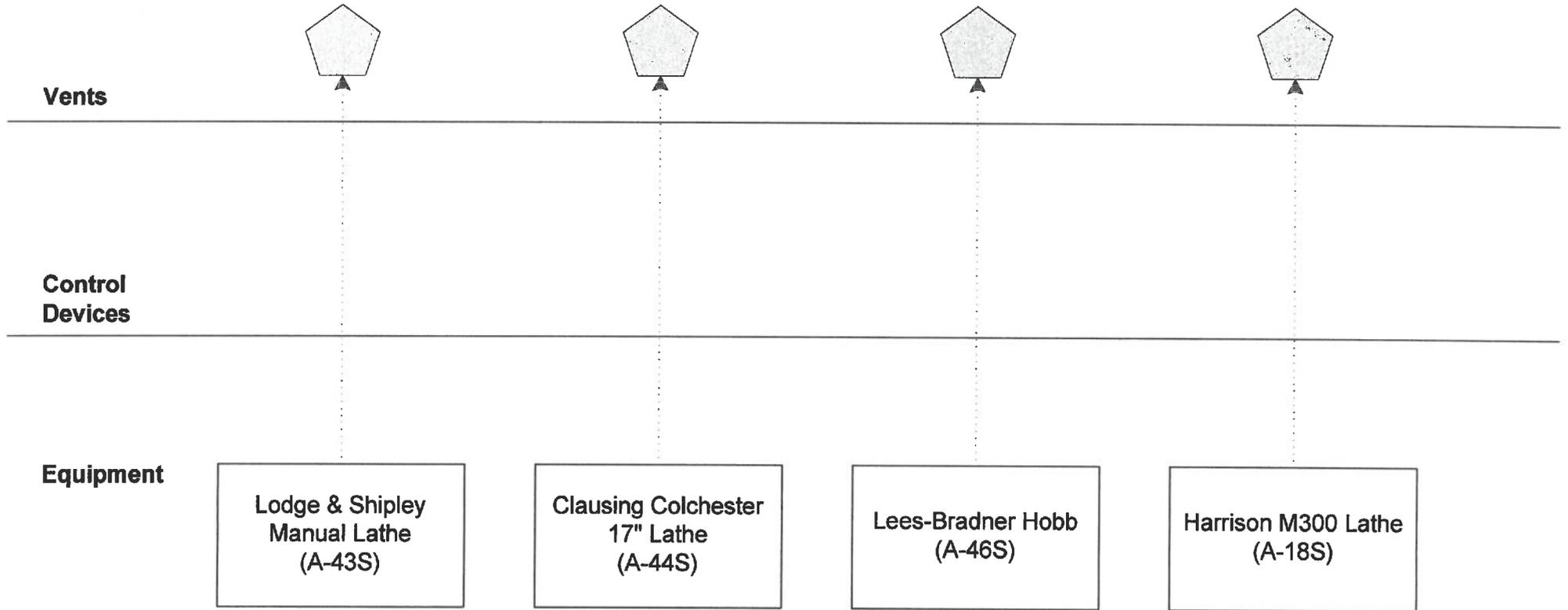
Building 376-N Process Flow (Metal Fabrication - Aerospace Area)



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Operations LLC
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Building 376-N Process Flow (Metal Fabrication - Aerospace Area)



Equipment

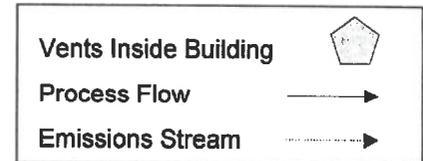
Lodge & Shipley
Manual Lathe
(A-43S)

Clausing Colchester
17" Lathe
(A-44S)

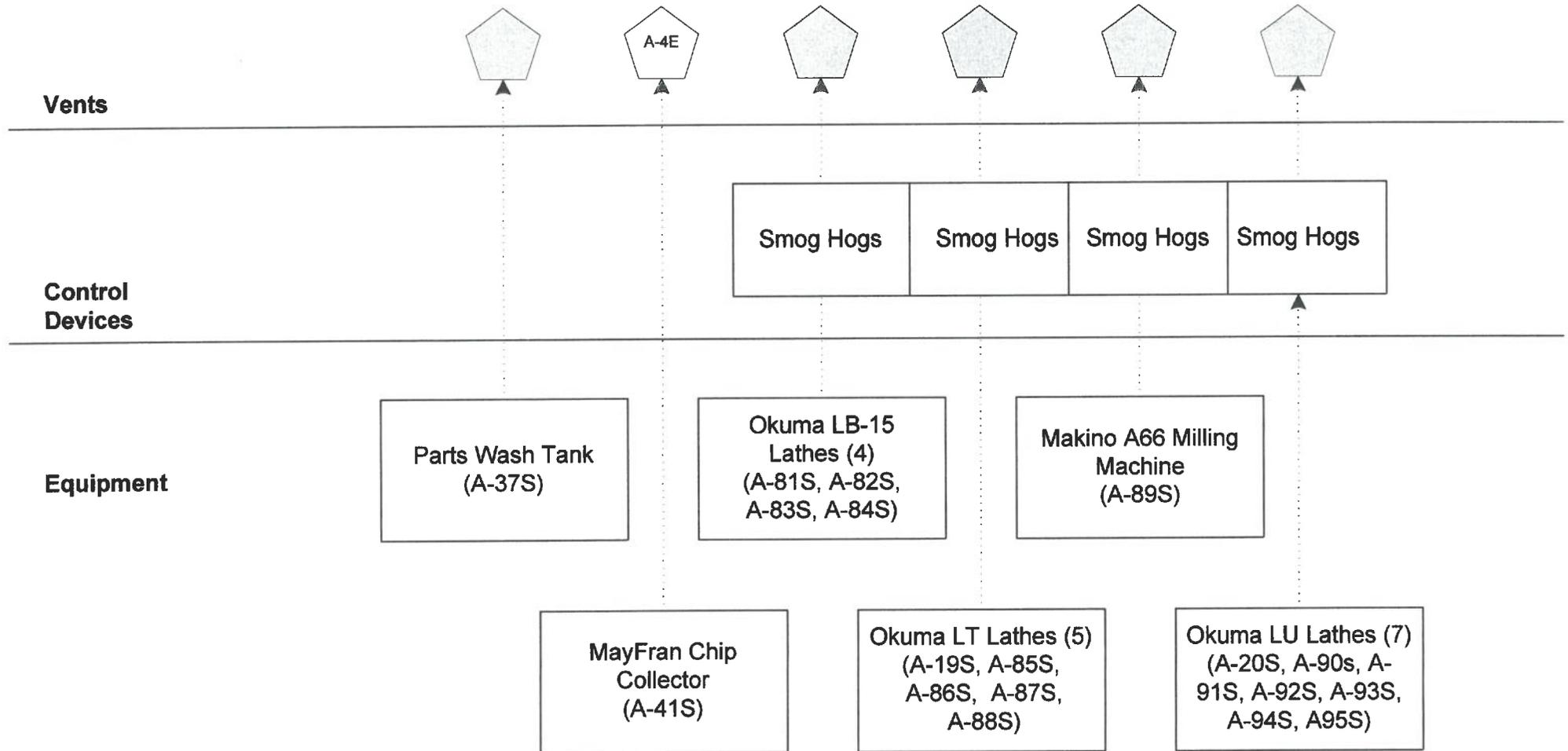
Lees-Bradner Hobb
(A-46S)

Harrison M300 Lathe
(A-18S)

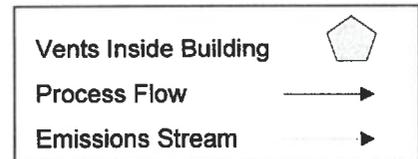
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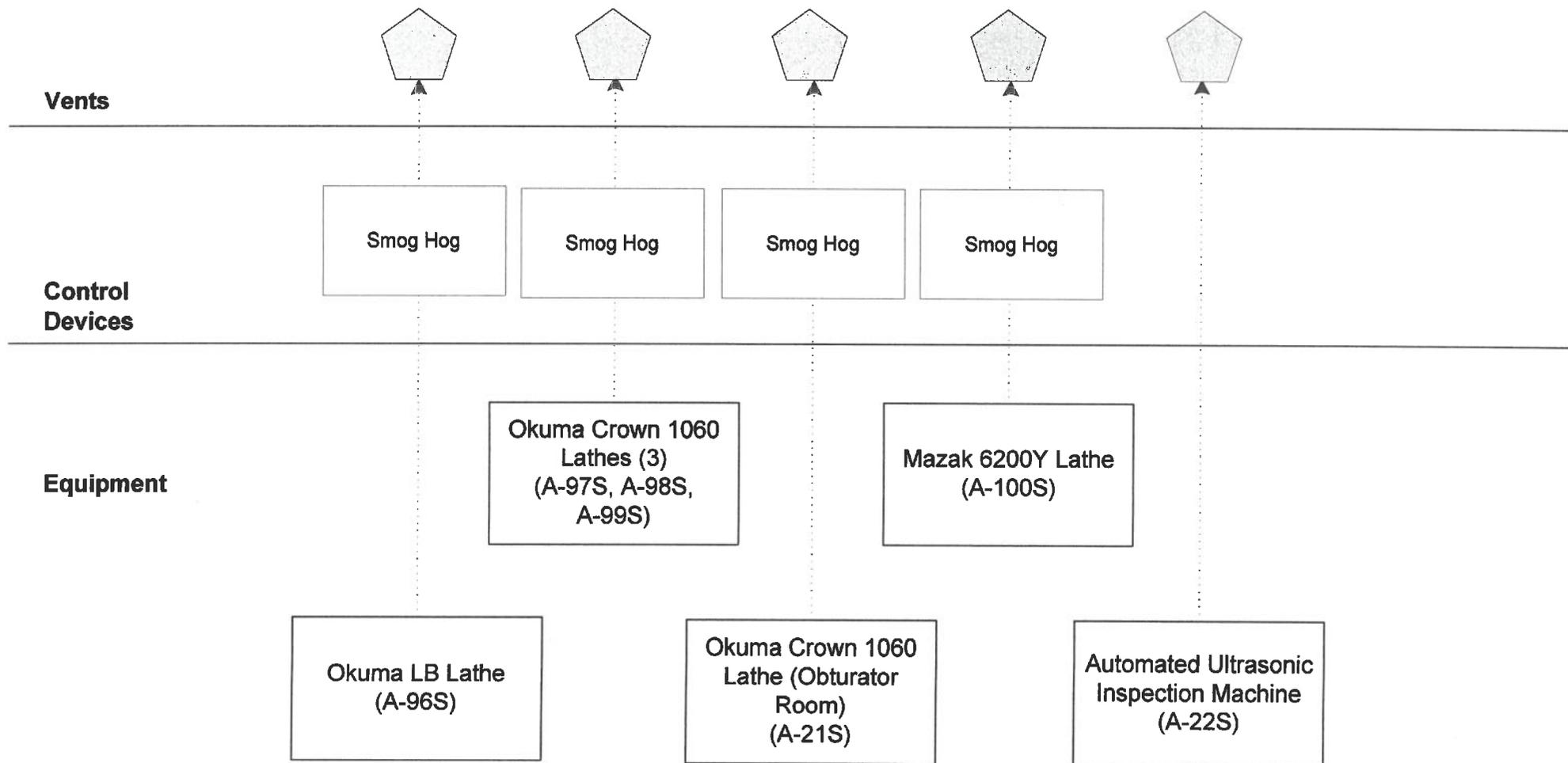
Building 376-S Process Flow (Metal Fabrication - Tank Ammo High Rate)



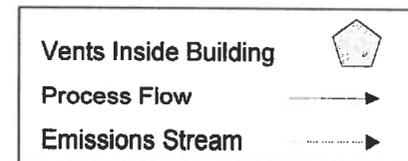
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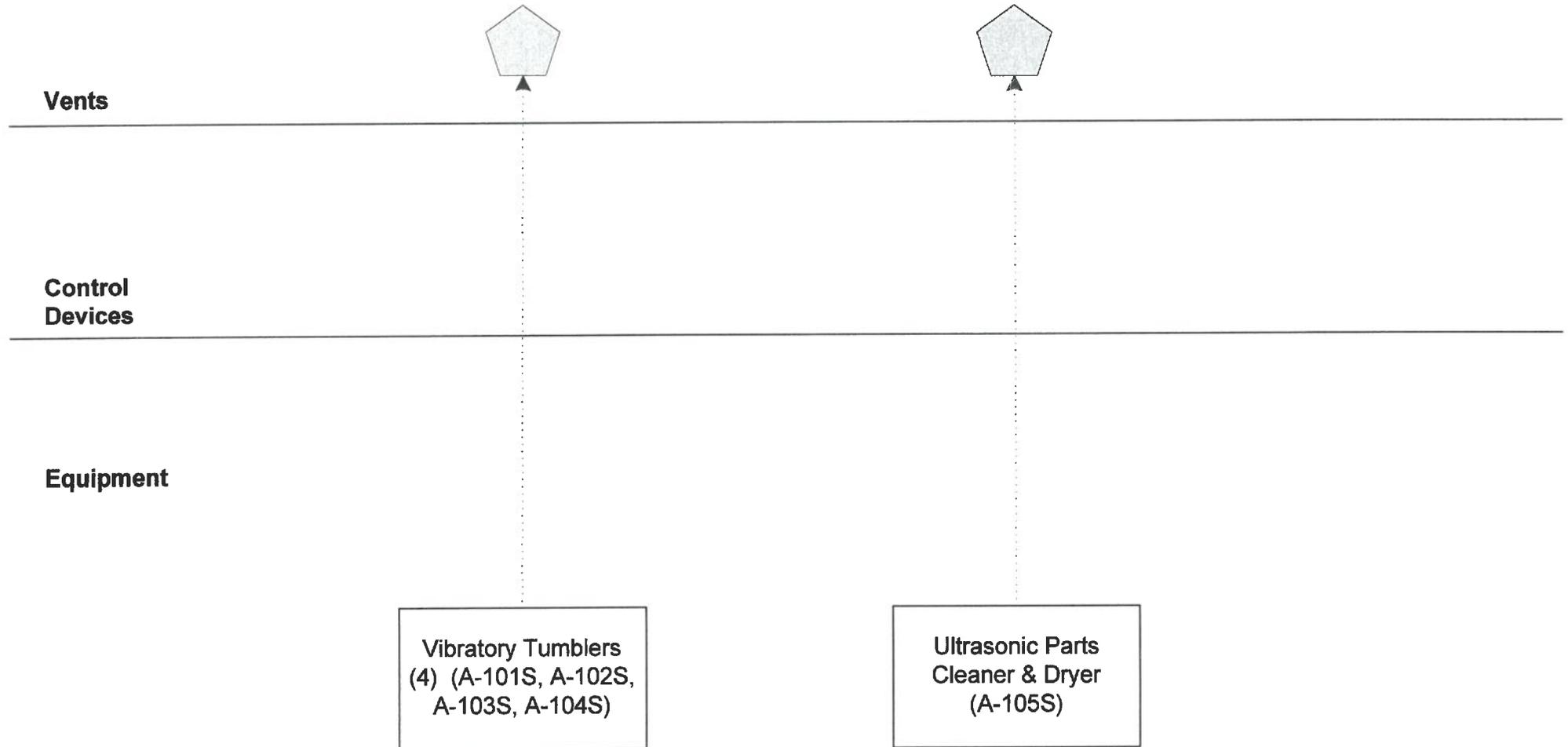
Building 376-S Process Flow (Metal Fabrication - Tank Ammo High Rate)



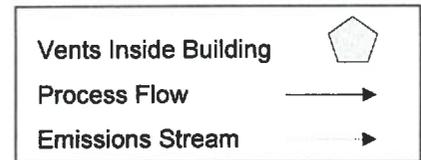
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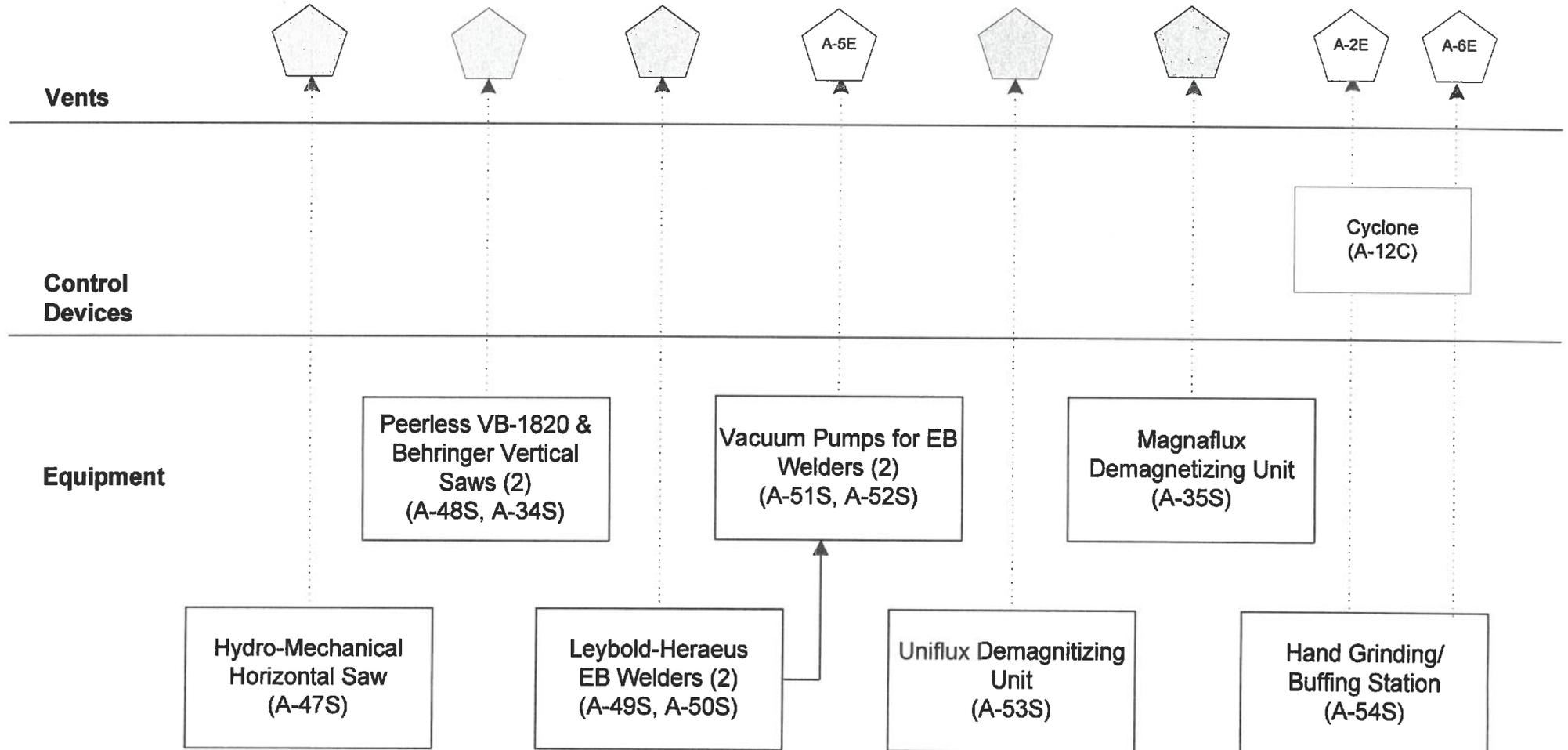
Building 376-S Process Flow (Metal Fabrication - Tank Ammo High Rate)



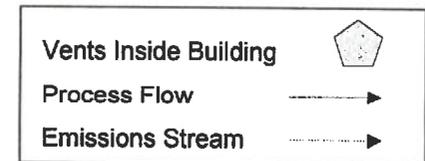
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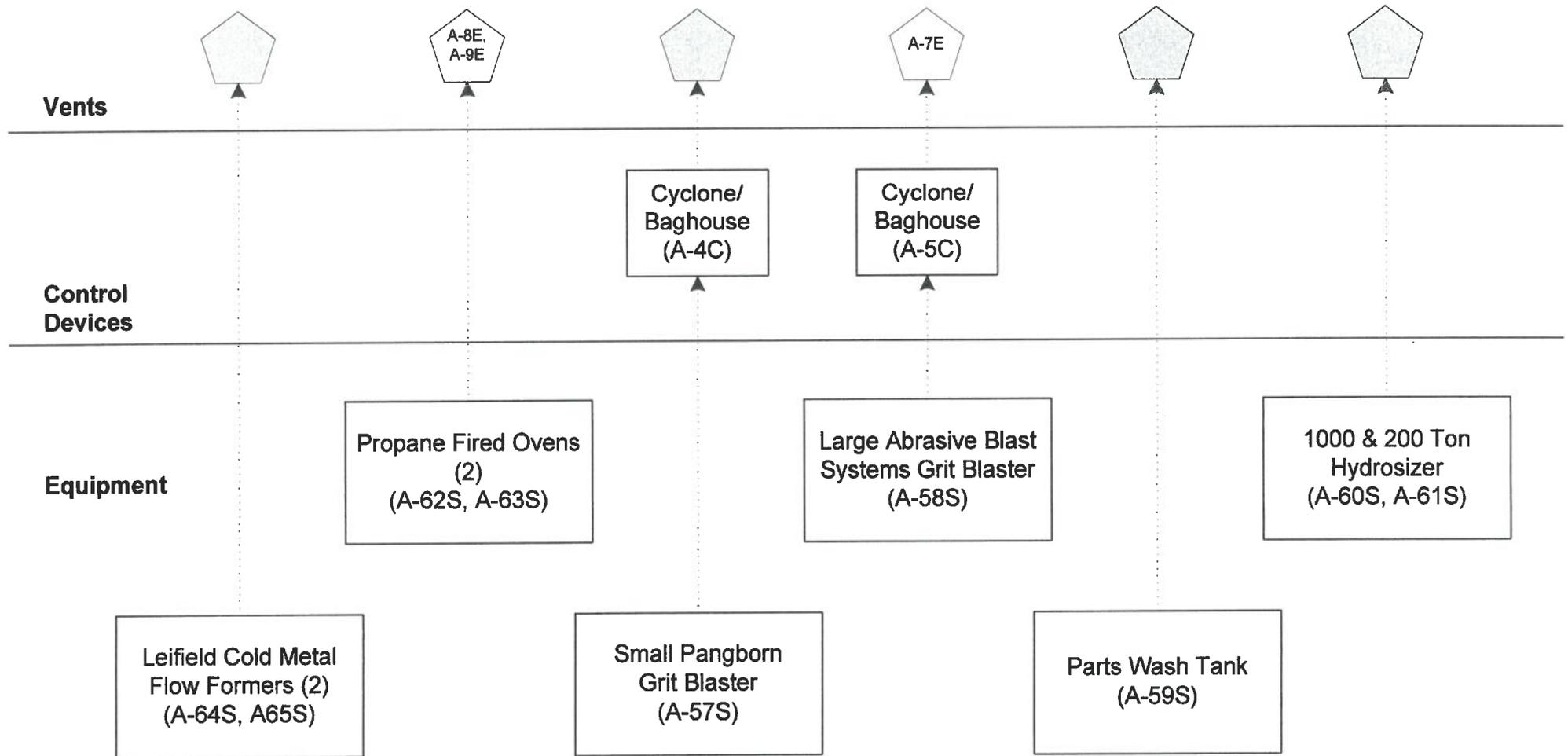
Building 438 Process Flow (Metal Fabrication)



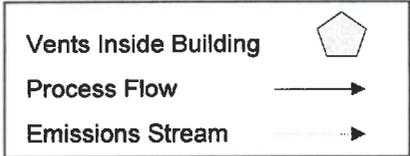
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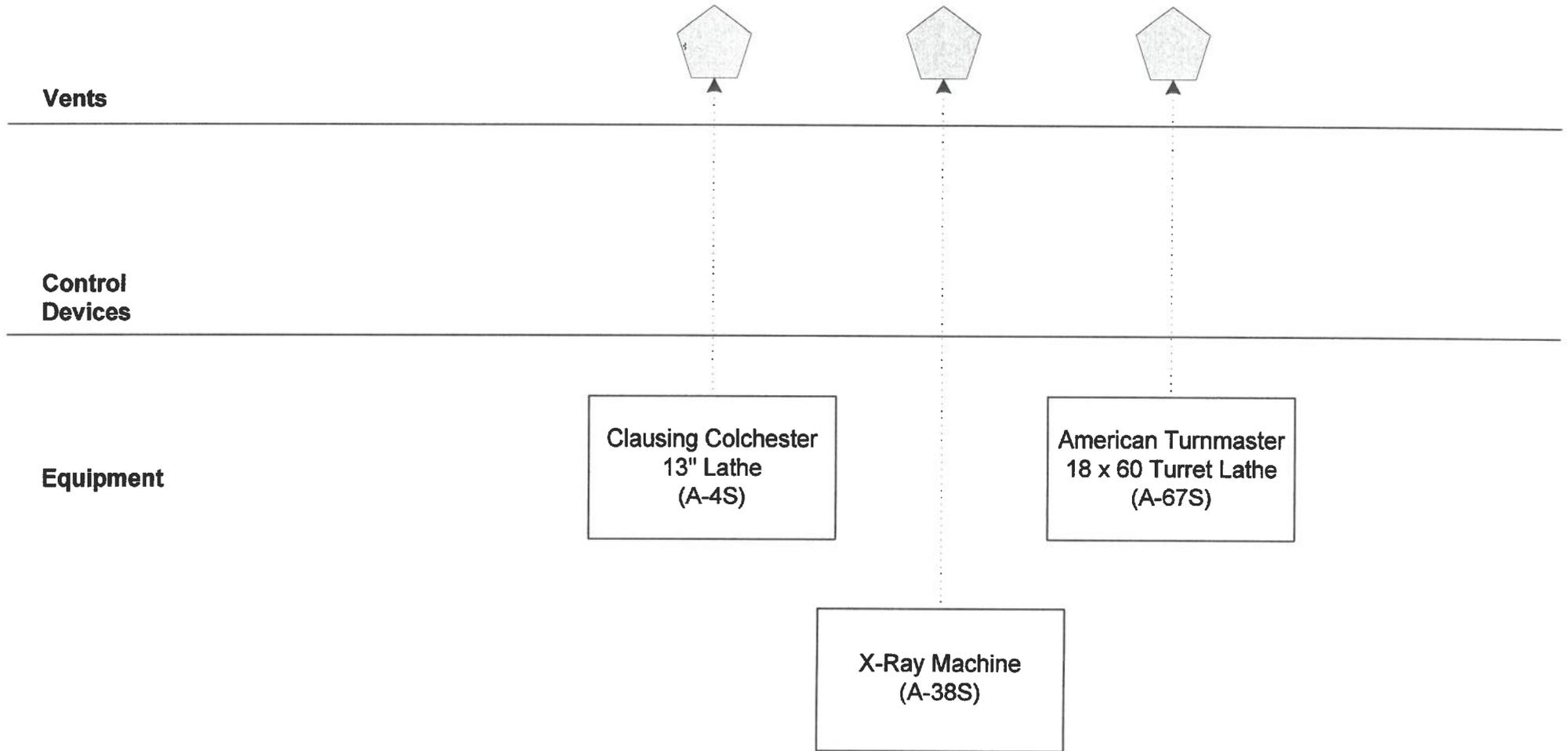
Building 438 Process Flow (Metal Fabrication)



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Building 438 Process Flow (Metal Fabrication)

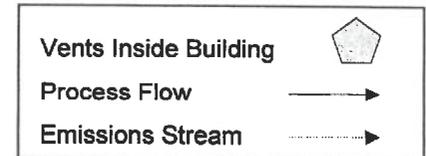


Equipment

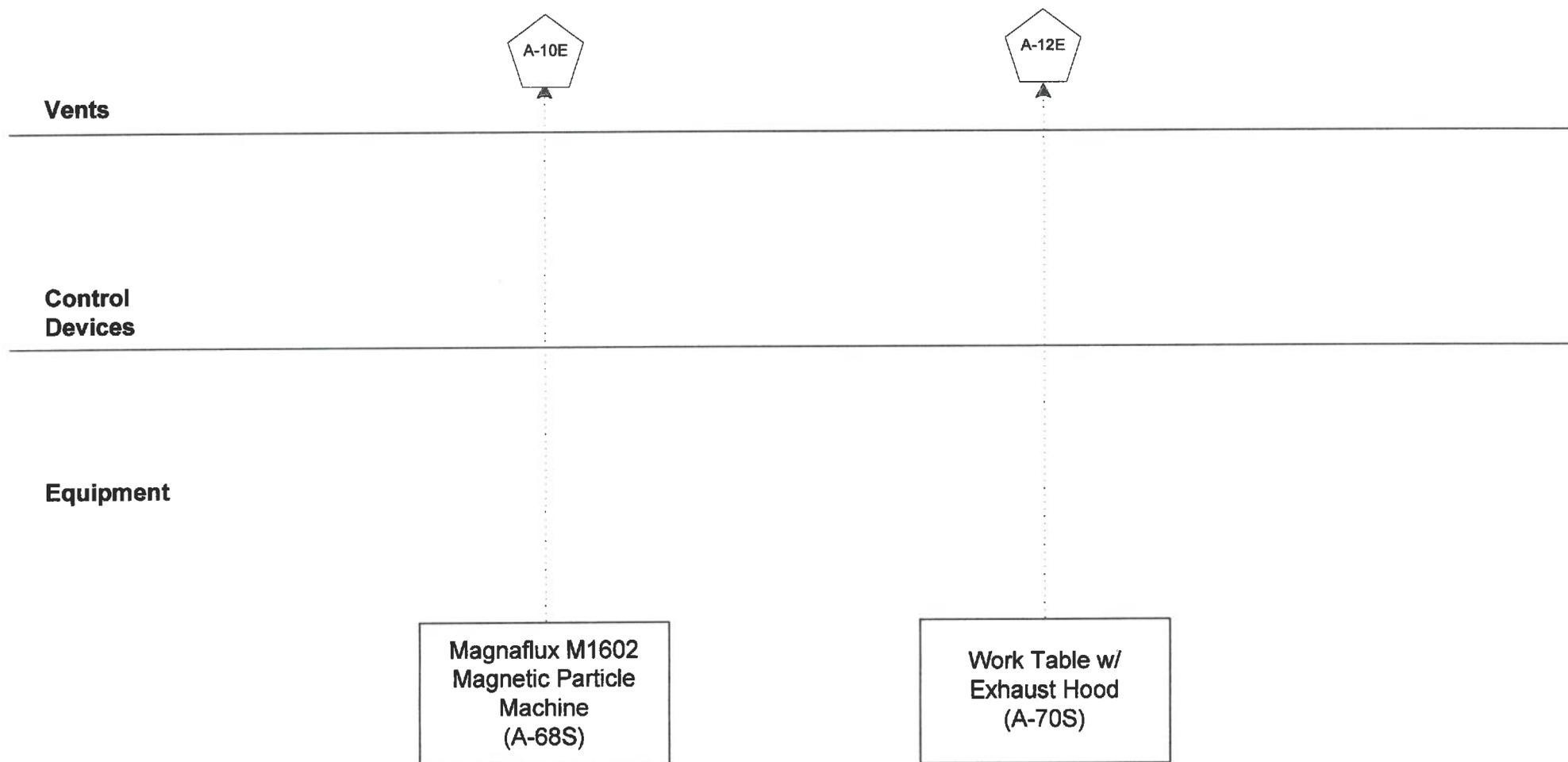
Control
Devices

Vents

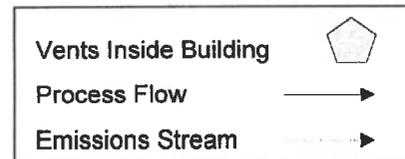
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Operations LLC
Rocket Center, WV 26726



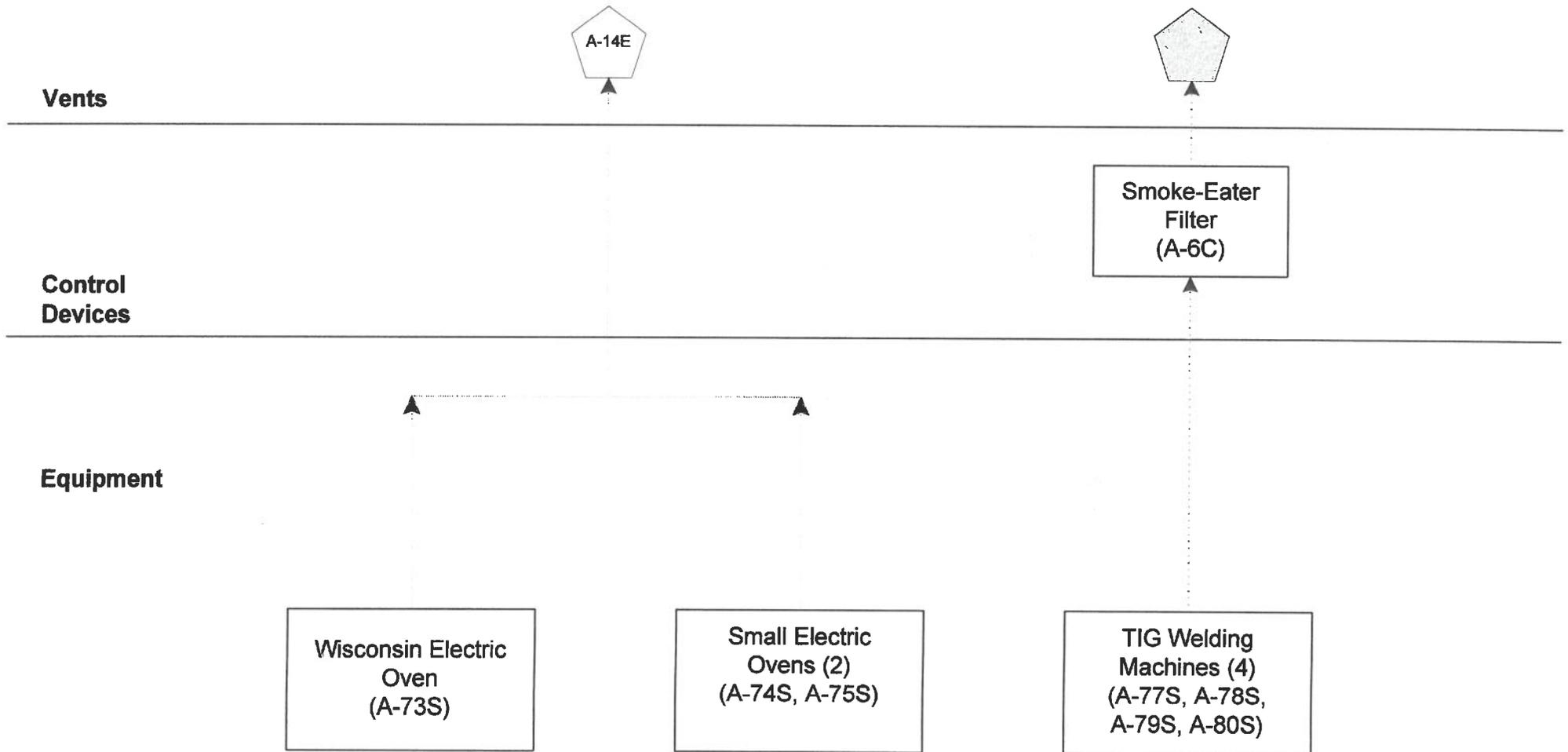
Building 438 Process Flow (Inspection Area)



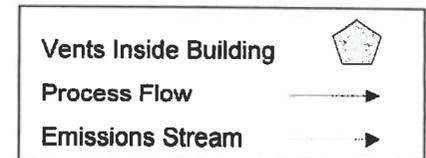
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Rocket Center, WV 26726



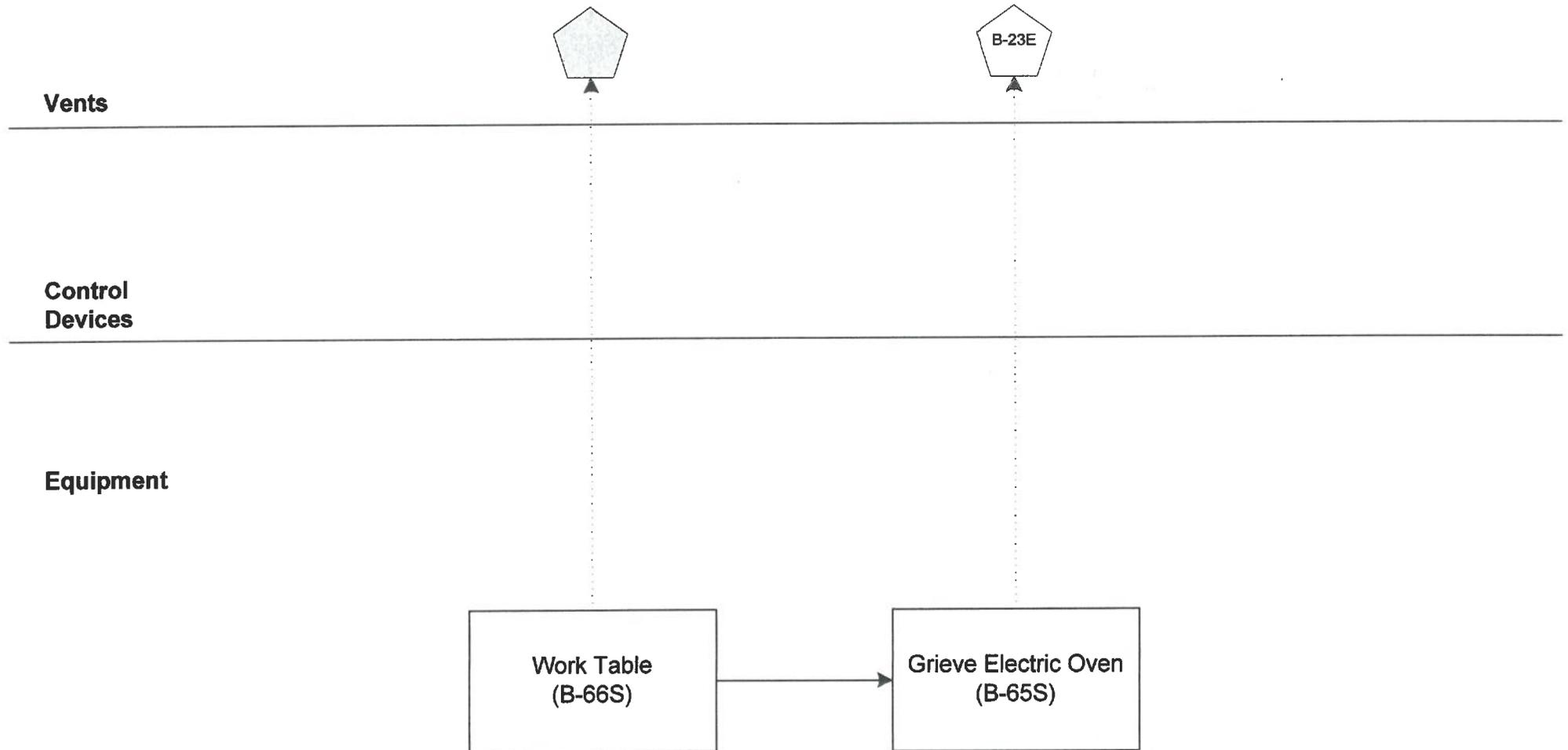
Building 438 Process Flow (Weld Shop Area)



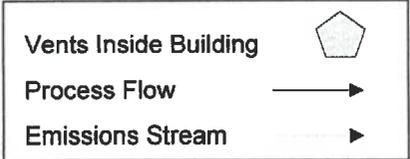
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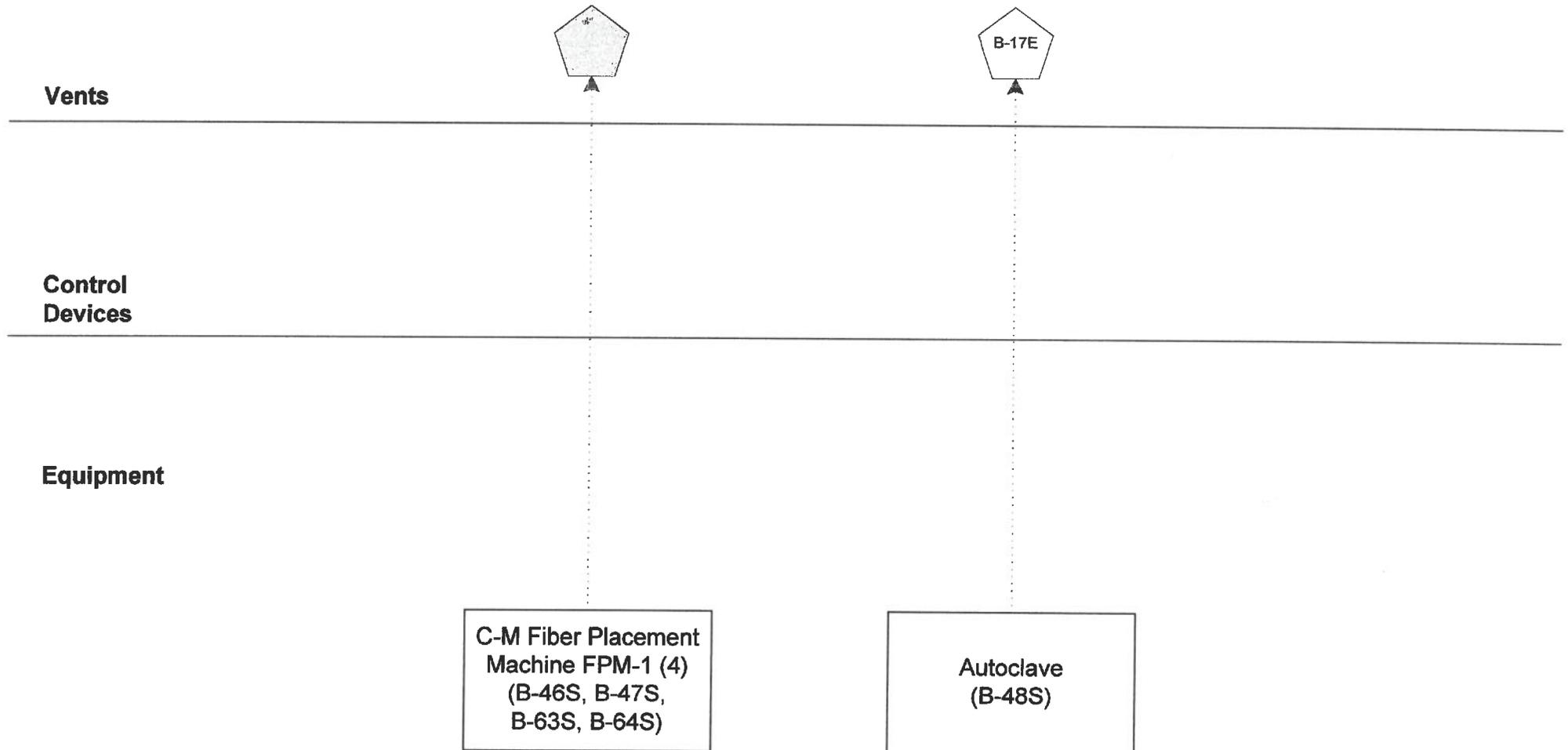
Building 167 Process Flow (F-22 Bypass Screens)



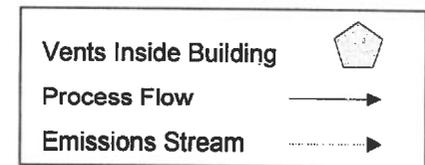
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Operations LLLC
Rocket Center, WV 26726



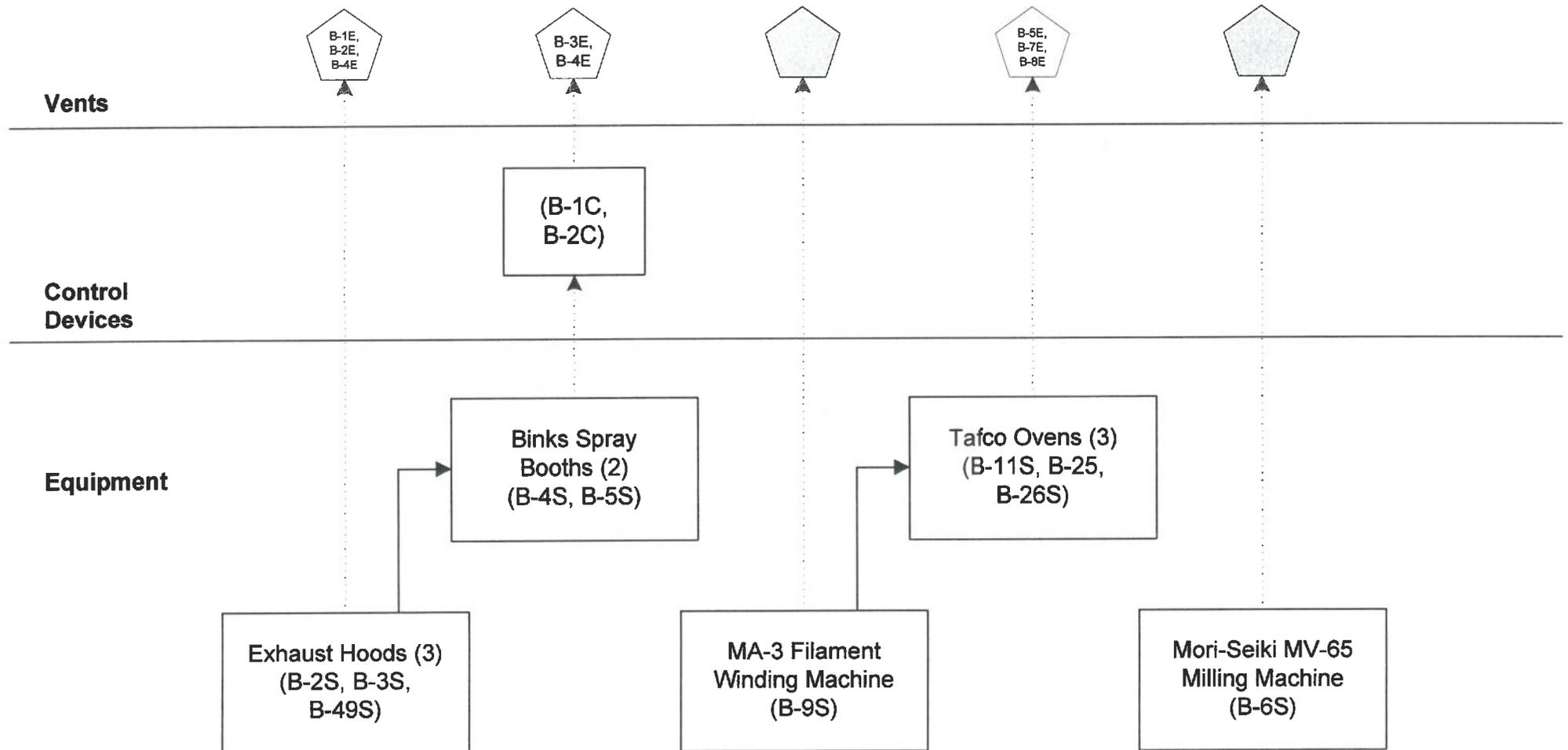
Building 256 Process Flow (Composite Case Fabrication)



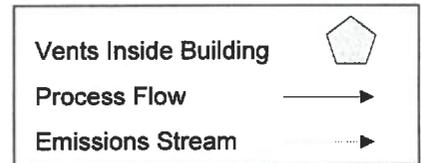
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Rocket Center, WV 26726



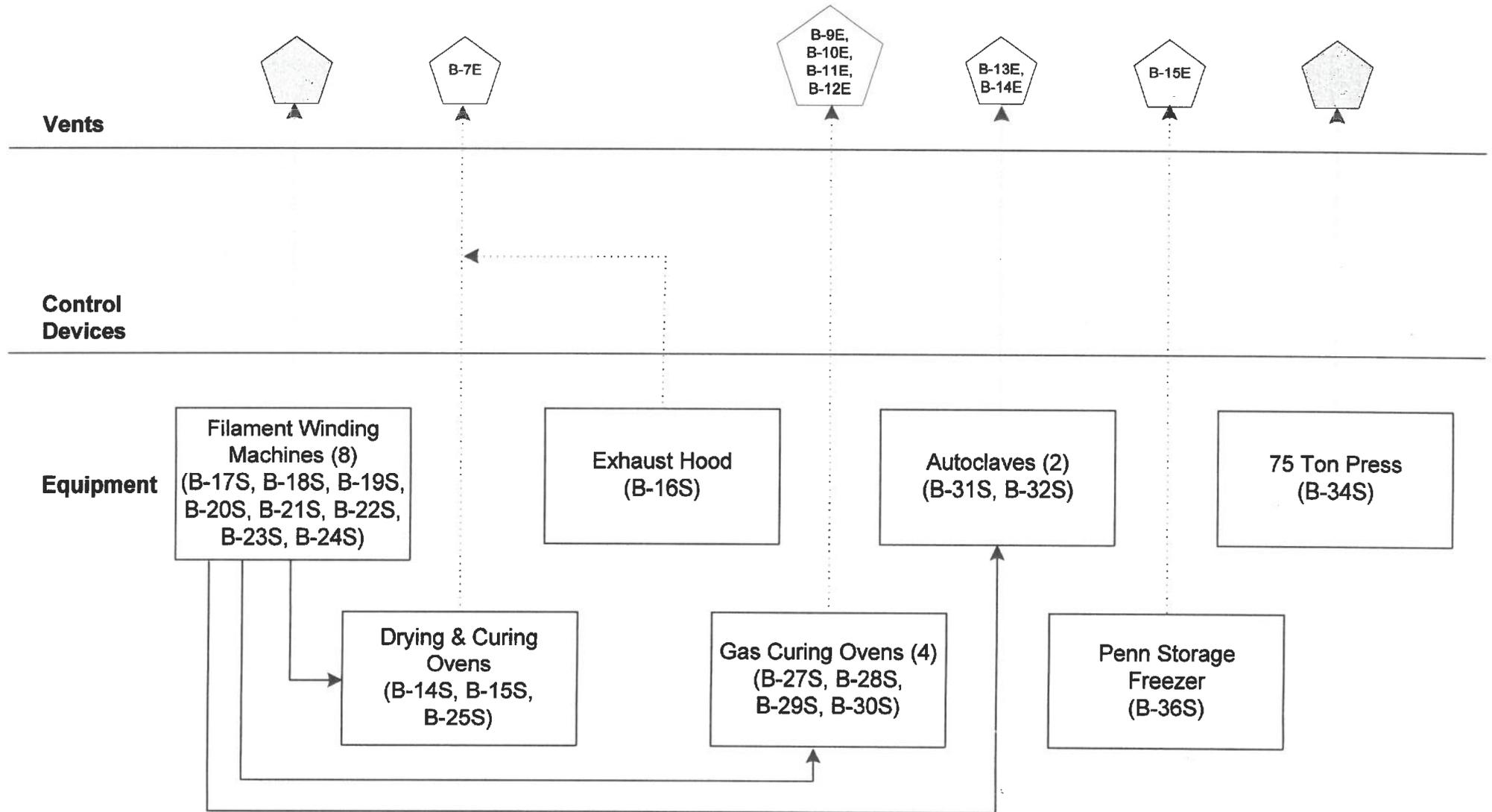
Building 368 Process Flow (Composite Case Fabrication - Javelin)



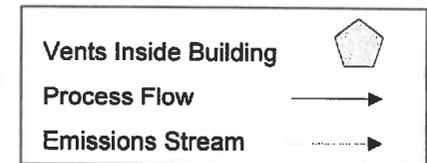
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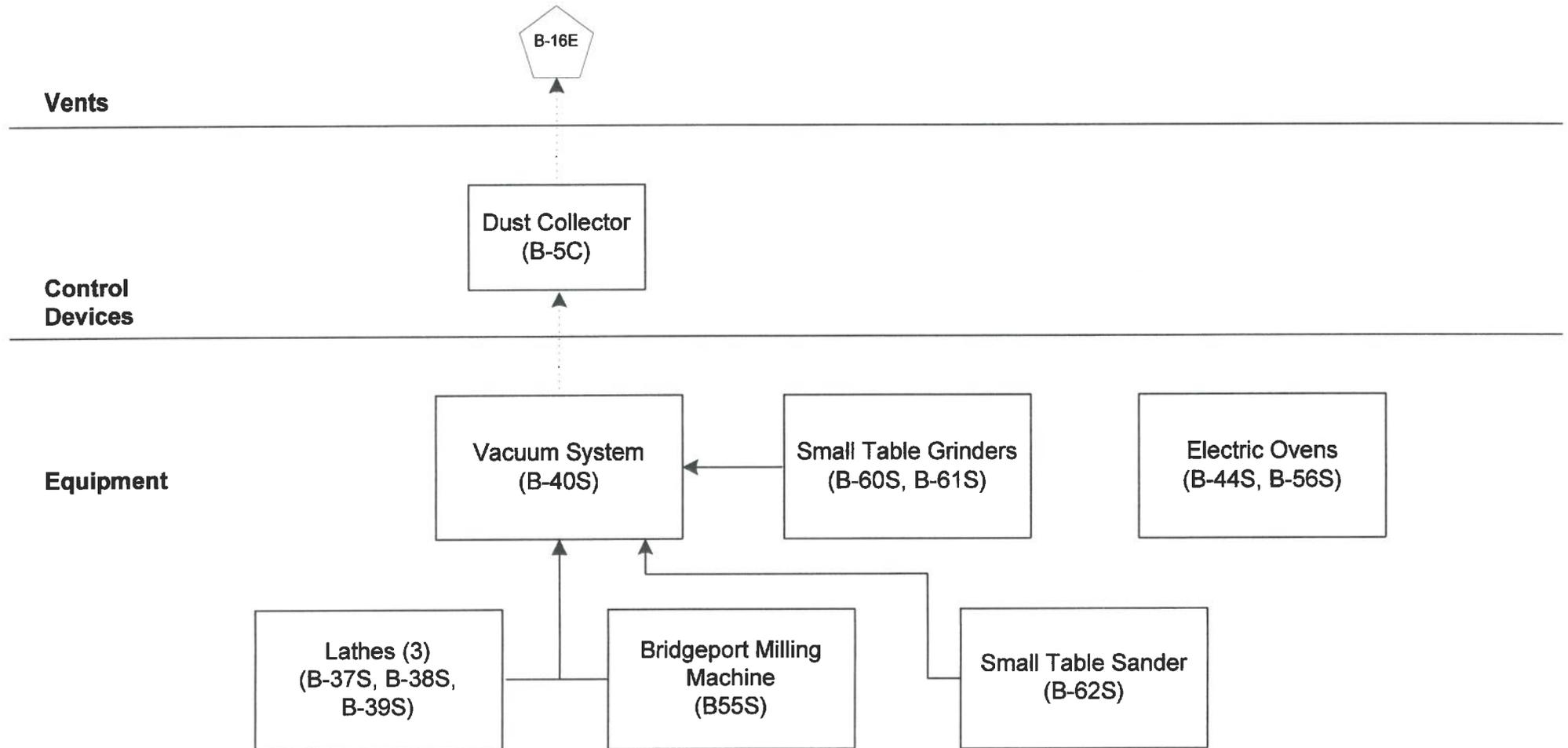
Building 368 Process Flow (Composite Case Fabrication)



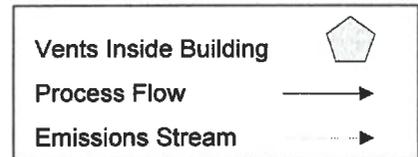
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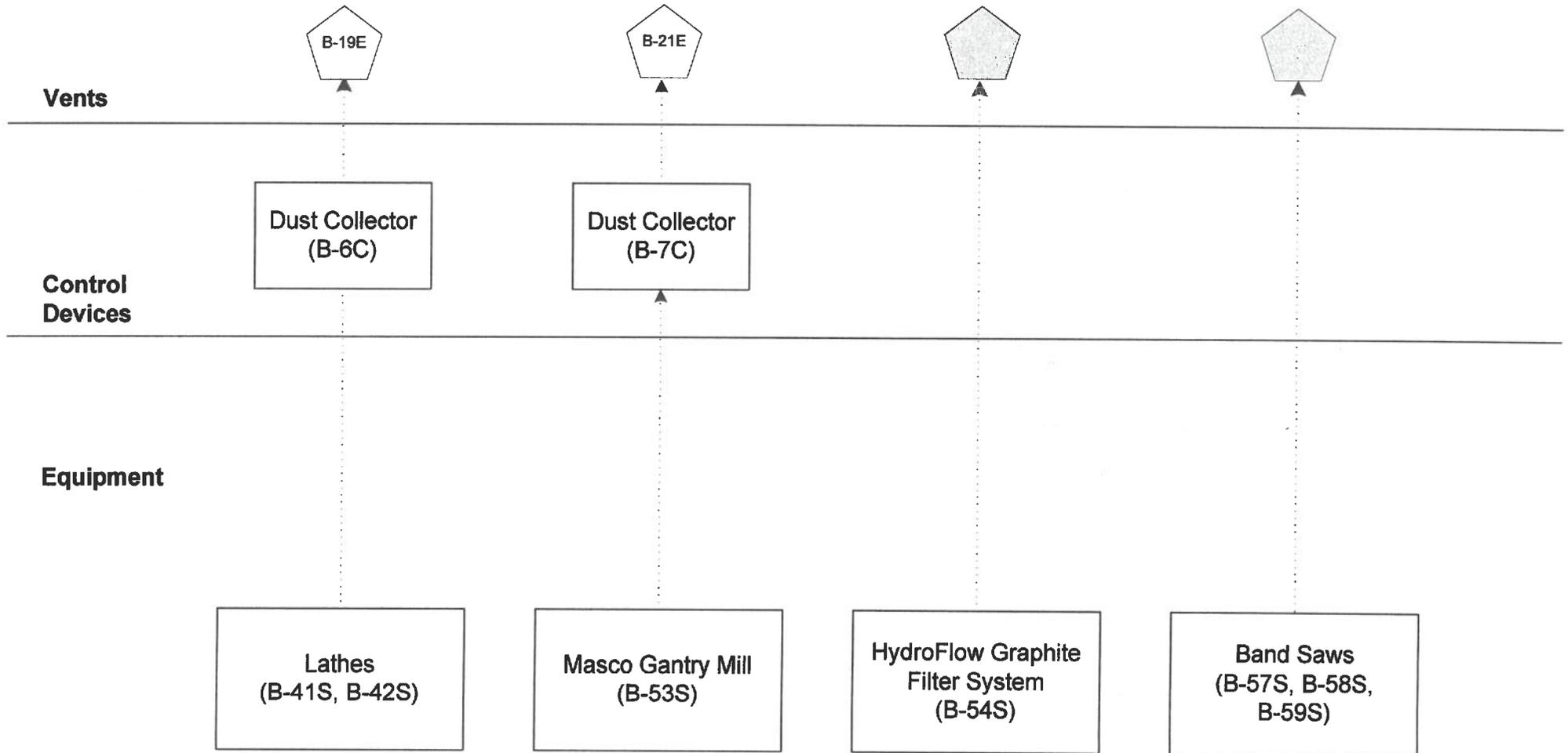
Building 368 Process Flow (Composite Machining)



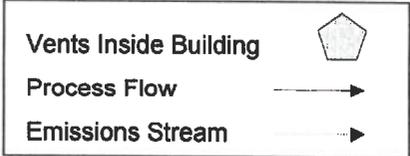
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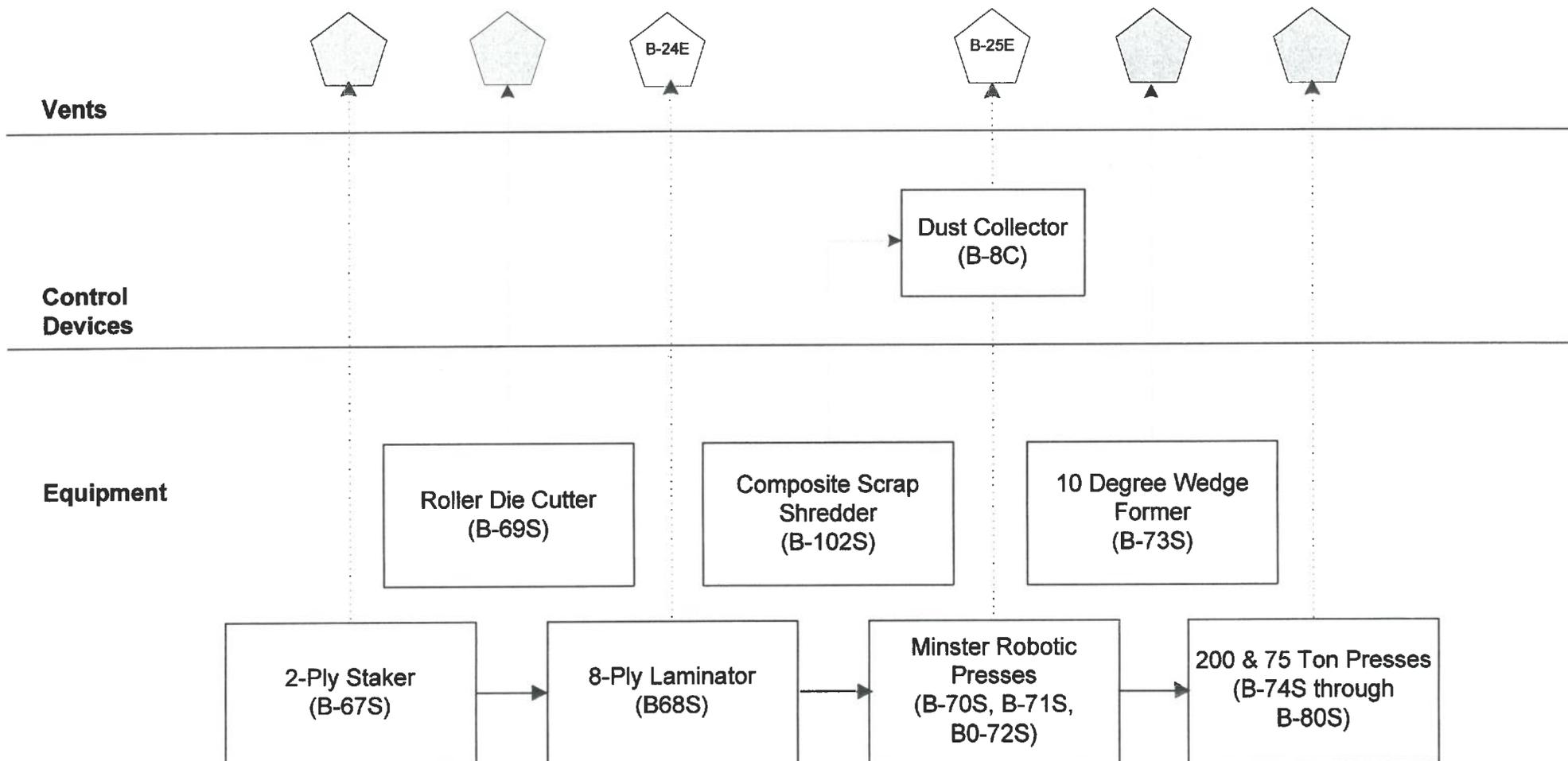
Building 368 Process Flow (Composite Machining)



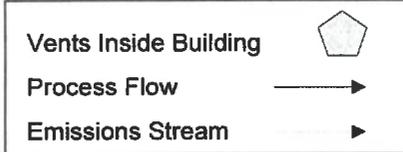
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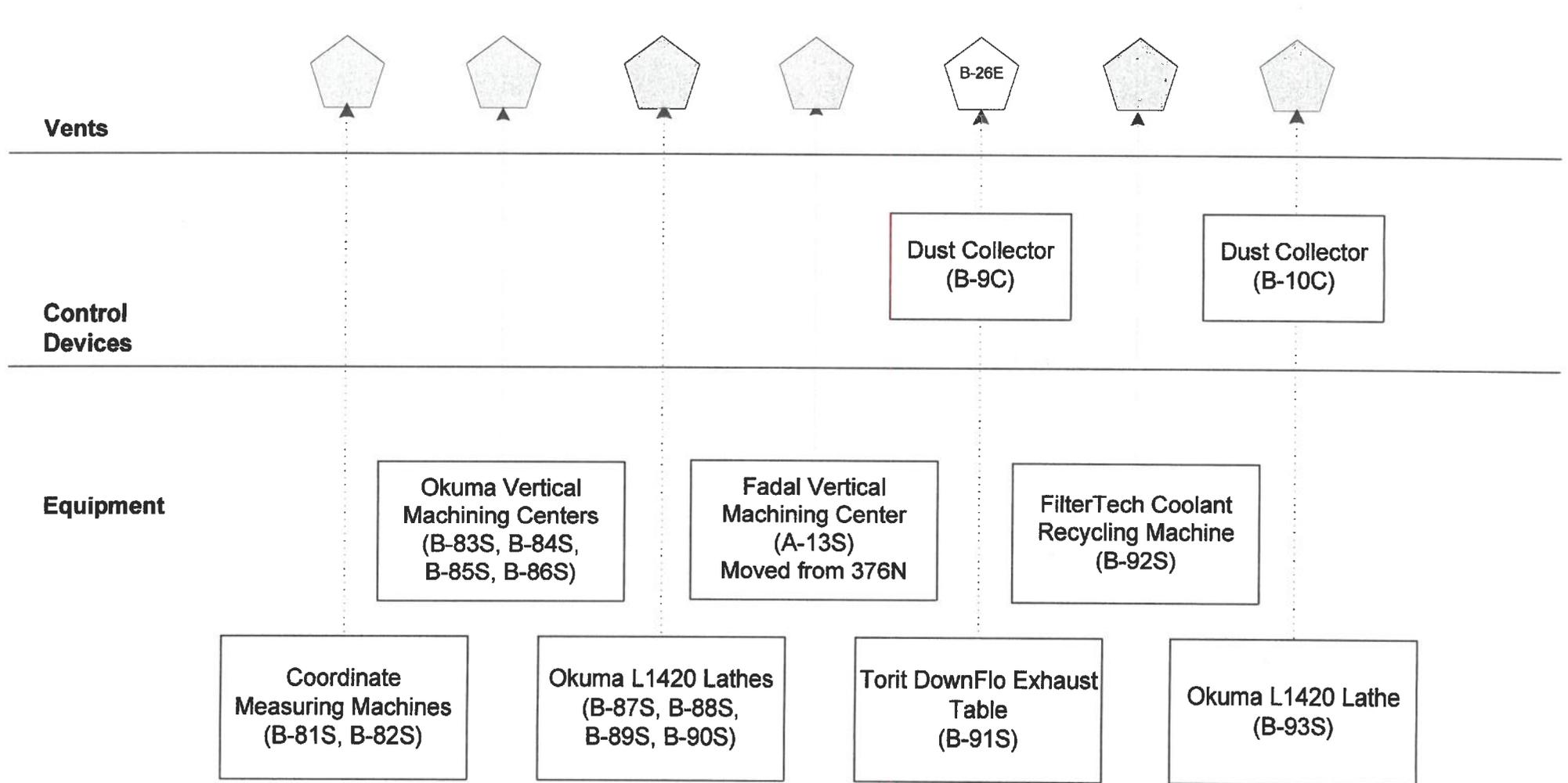
Building 368 Annex Process Flow (E-4 Sabot Manufacture)



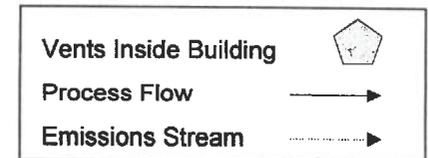
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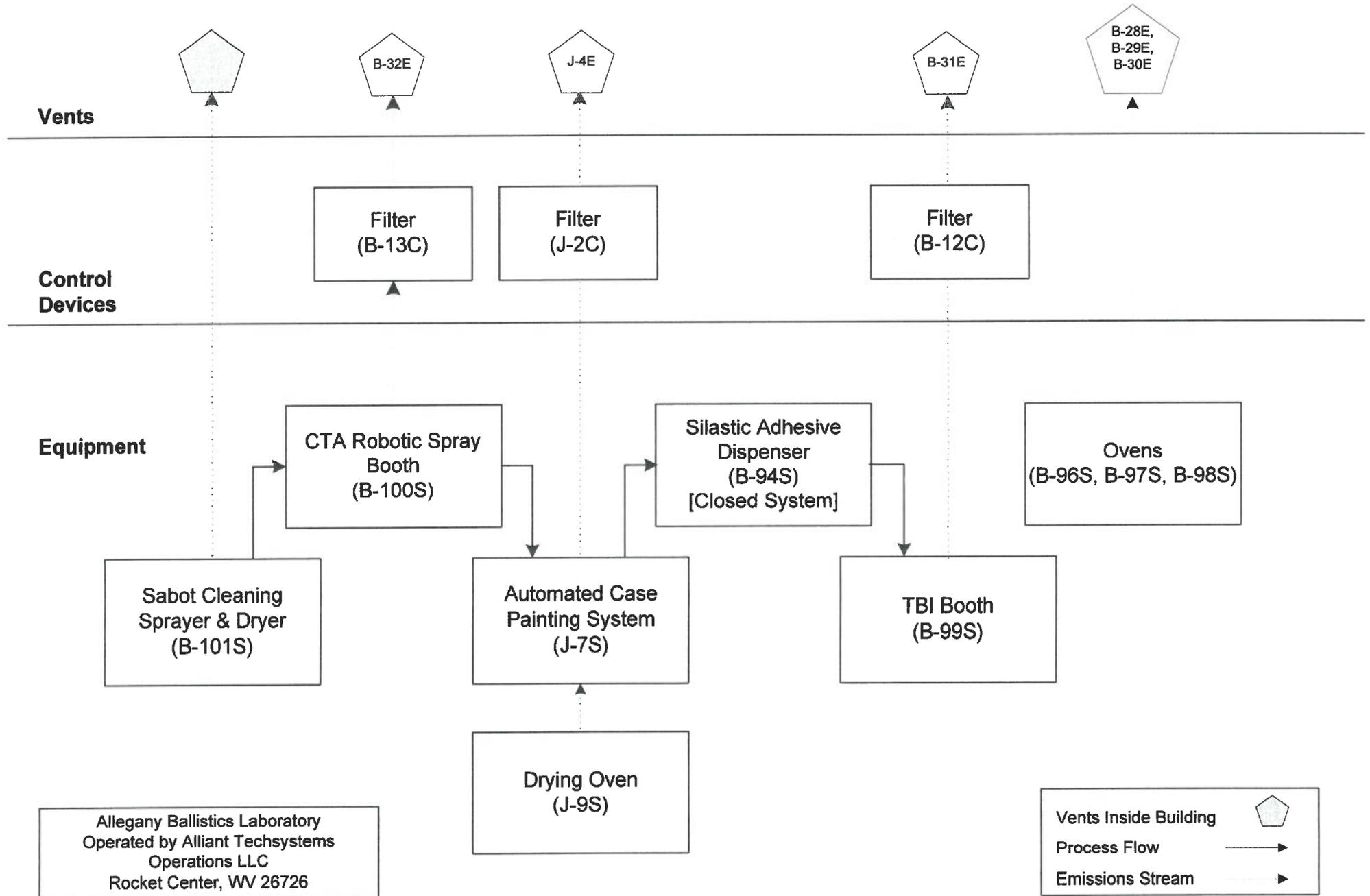
Building 368 Annex Process Flow (E-4 Sabot Machining)



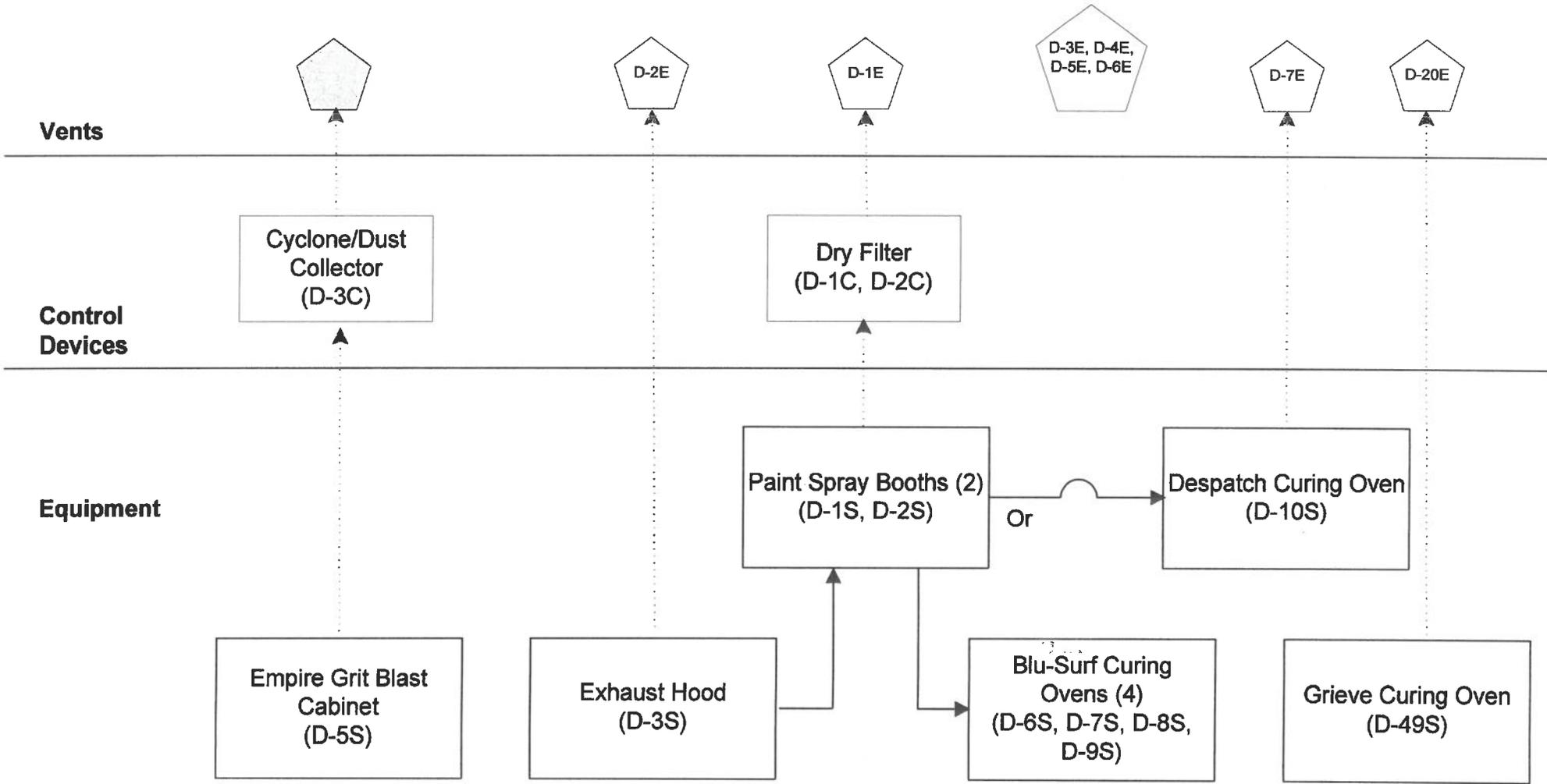
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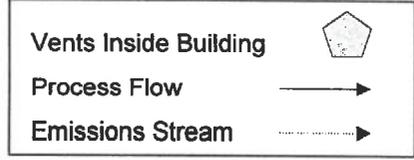
Building 368 Annex Process Flow (E-4 Sabot Sealing)



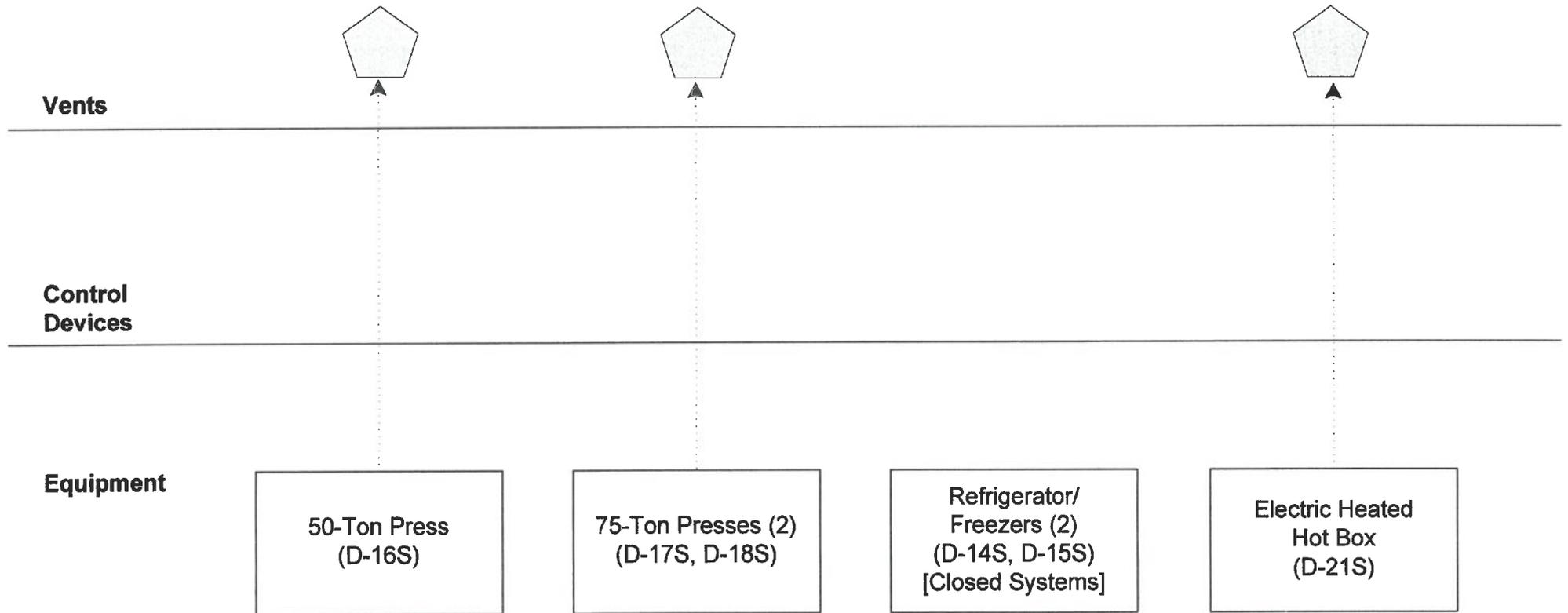
Building 421/819 Process Flow (Nozzle Preparation)



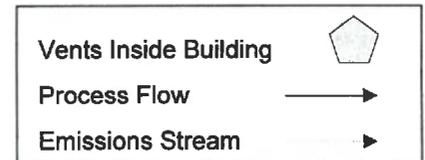
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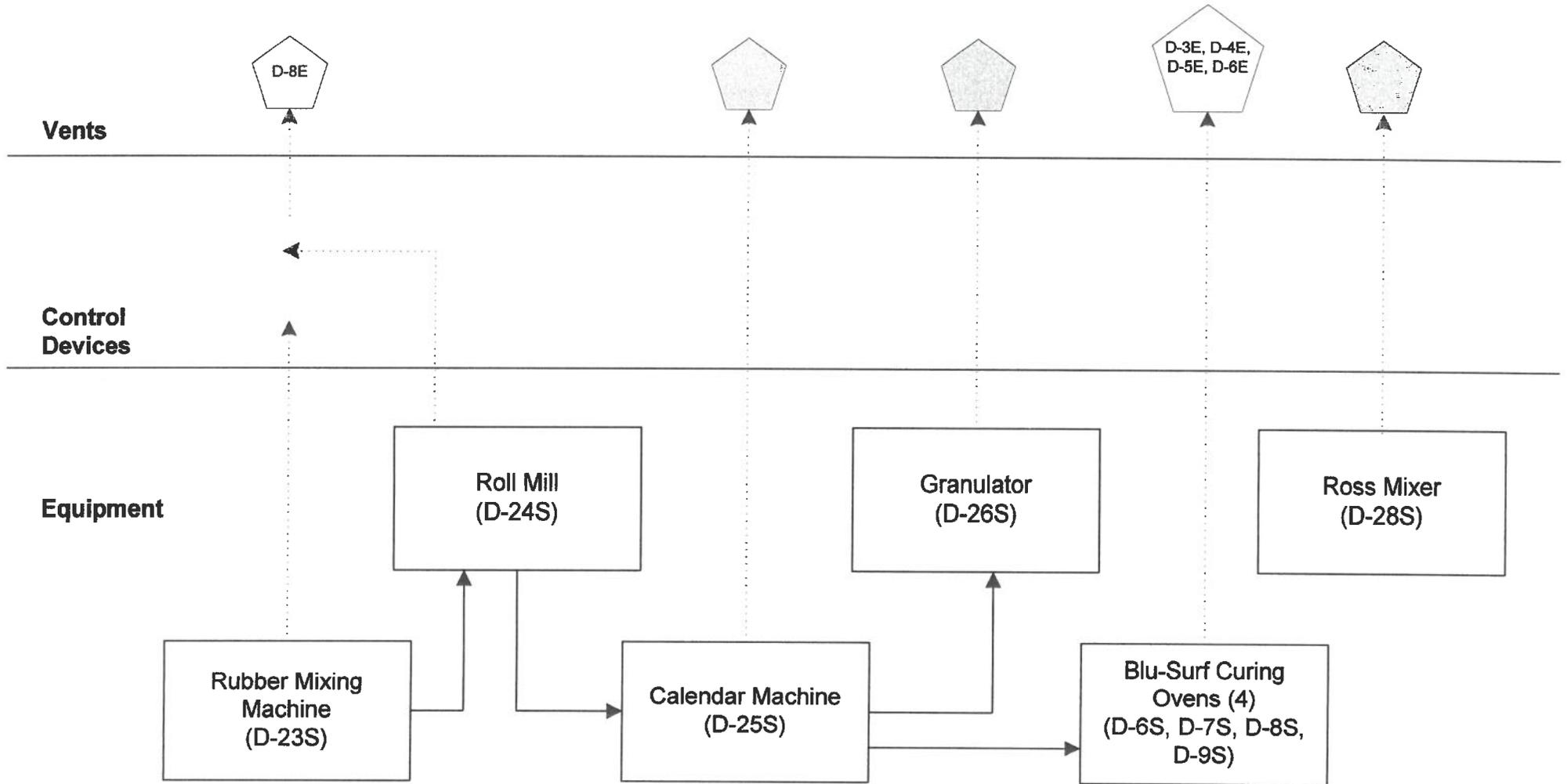
Building 421/819 Process Flow (Nozzle Preparation)



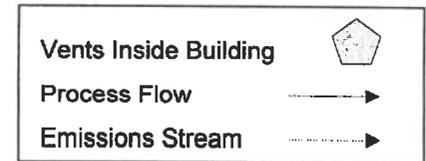
Allegany Ballistics Laboratory
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Rocket Center, WV 26726



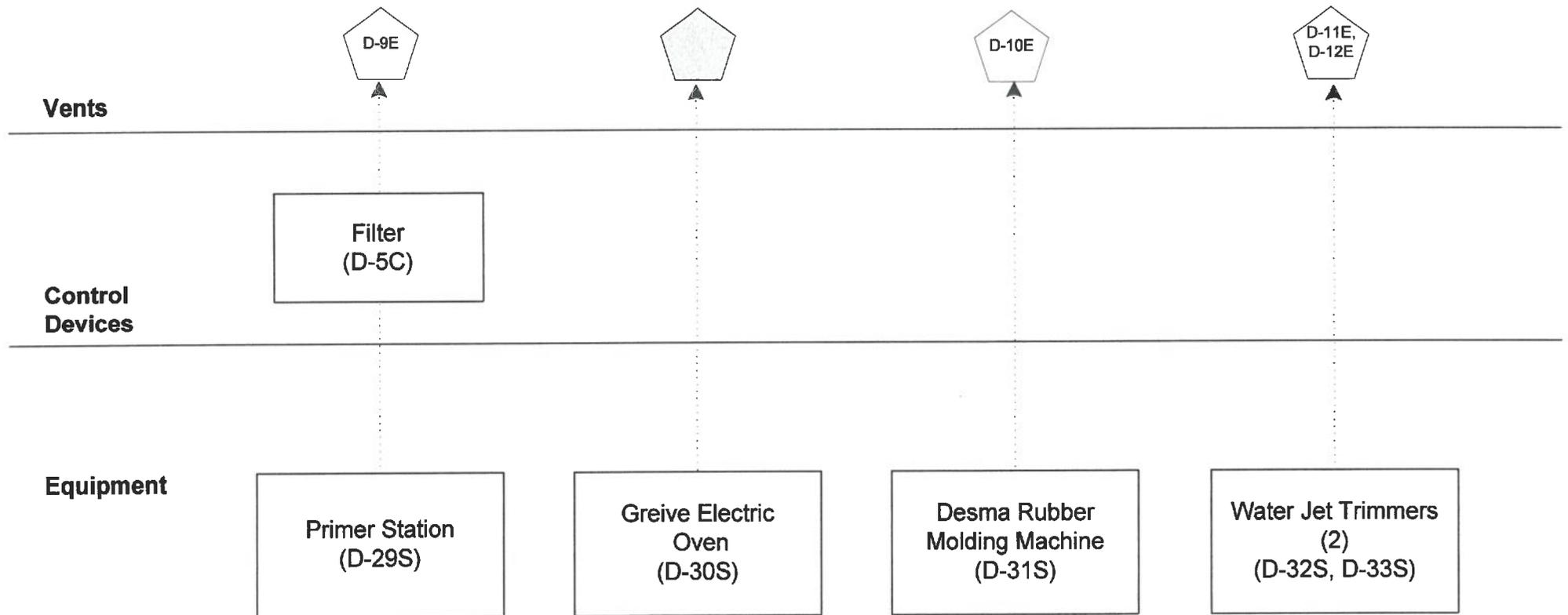
Building 421/819 Process Flow (Insulator Preparation)



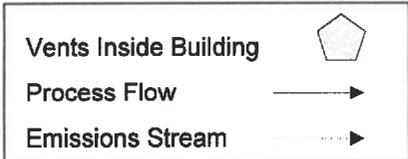
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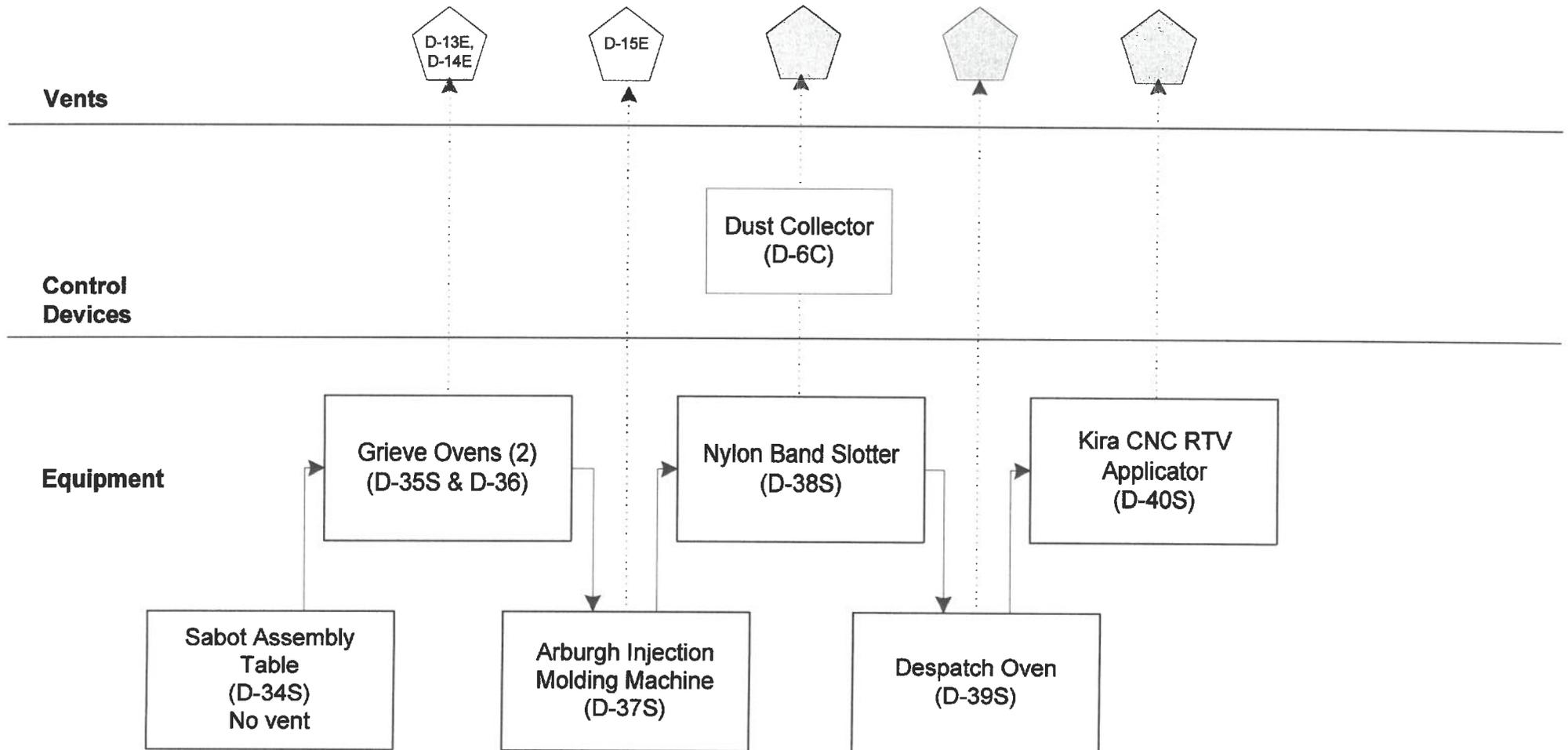
Building 421/819 Process Flow (Case Base Area)



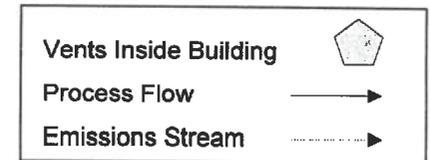
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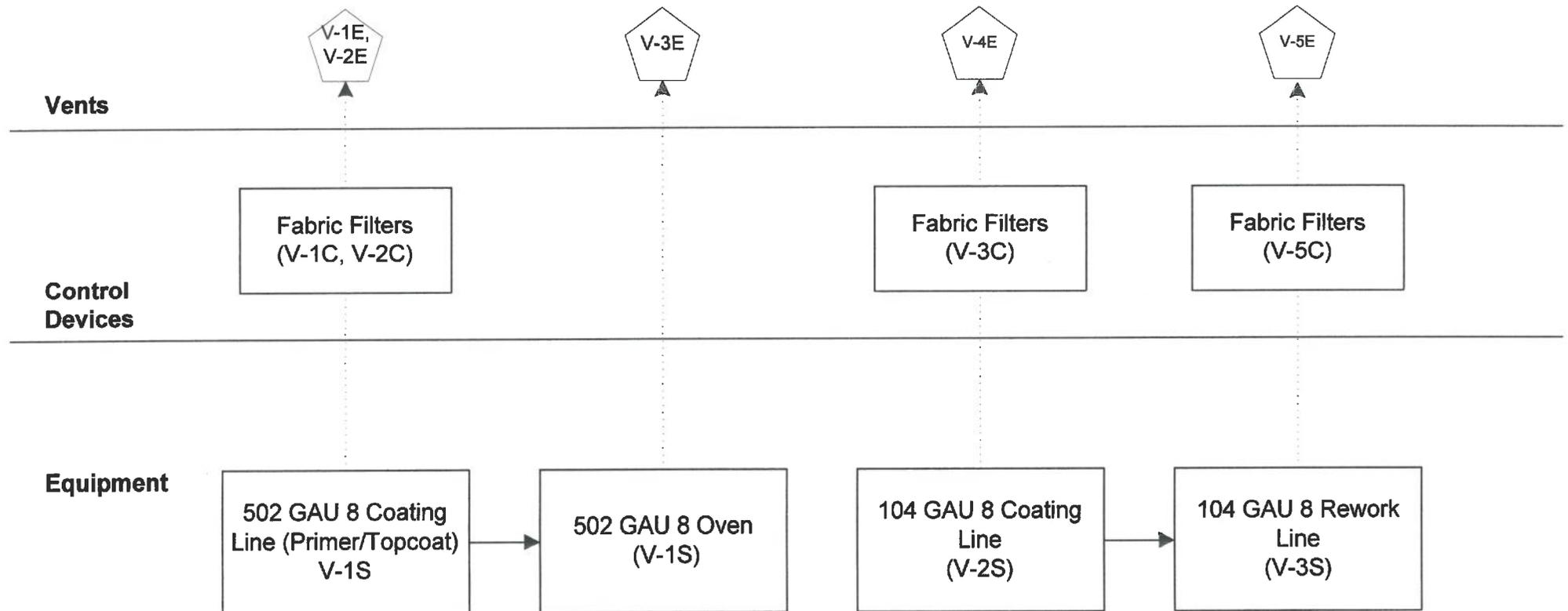
Building 421/819 Process Flow (M-865 Sabot Assembly)



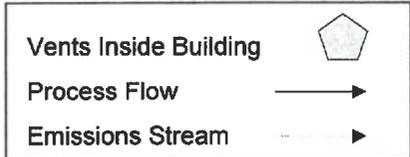
Allegany Ballistics Laboratory
 Operated by Alliant Techsystems
 Operations LLC
 Rocket Center, WV 26726



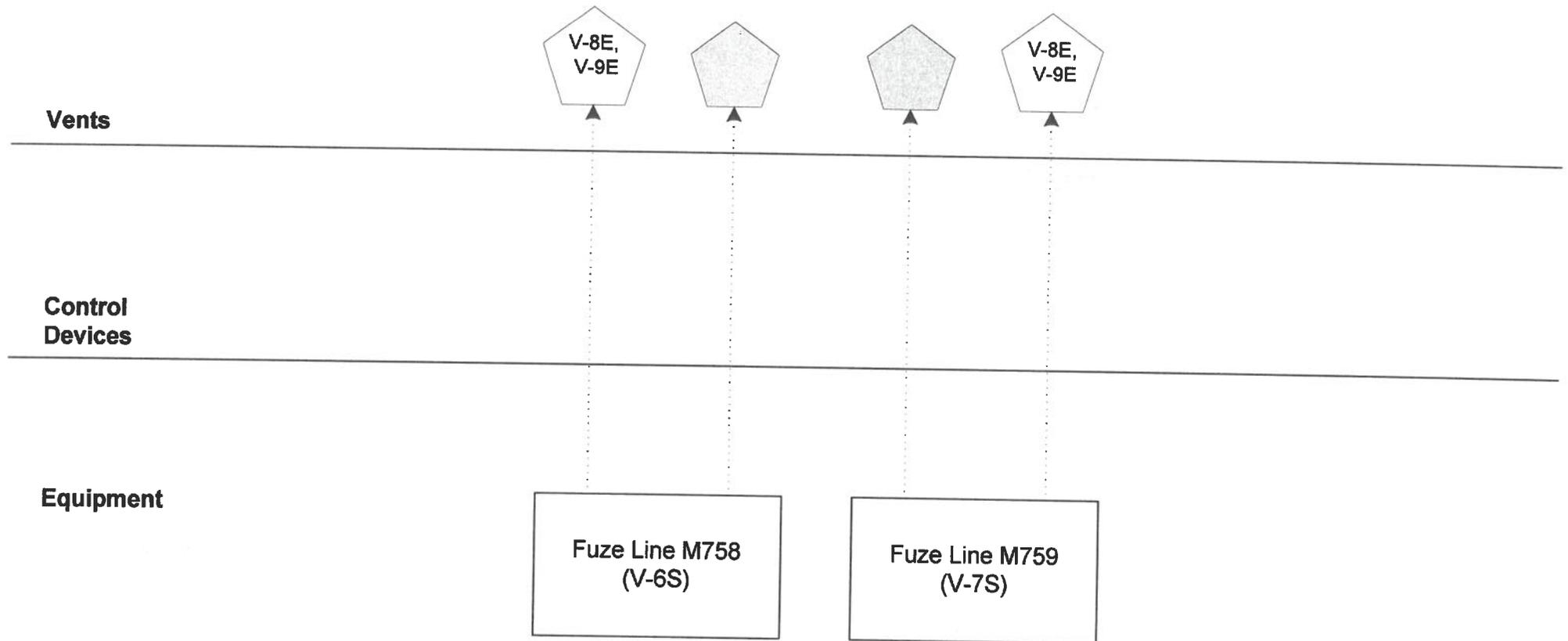
Building 376 Medium Cal Process Flow (Projectile Process)



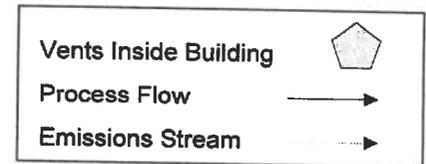
Allegany Ballistics Laboratory
Operated by Alliant Techsystems
Operations LLC
Rocket Center, WV 26726



Building 376 Medium Cal Process Flow (Fuze Process)



Allegheny Ballistics Laboratory
Operated by Alliant Techsystems
Operations LLC
Rocket Center, WV 26726



ATTACHMENT D - Emission Units Table
 (includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

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

Emission Unit ID ¹	Emission Point ID ^{1, a}	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ^{1, b}
B-40S	B-16E	Vacuum System-368-MS	1996	Variable	B-5C
B-41S	B-19E	Mori Seiki Lathe-368-MS	1996	Variable	B-6C
B-42S	B-19E	Dainichi F-35M Lathe-368-MS	1996	Variable	B-6C
B-44S	B-20E	Grieve-Hendry Small Electric Oven-368-MS	1997	10 kw	
B-53S	B-21E	Masco Gantry Mill-368-MS	2000	Variable	B-7C
B-55S	B-21E	Bridgeport Milling Machine-368-MS	2000	Variable	B-7C
B-56S	B-22E	Young & Bertke Electric Oven-368-MS	2000	550°F	
B-60S	B-16E	Small Table Grinder-368-MS	2000	Variable	B-5C
B-61S	B-16E	Small Table Grinder-368-MS	2000	Variable	B-5C
B-62S	B-16E	Small Table Sander-368-MS	2000	Variable	B-5C
B-48S	B-17E	Autoclave-256-FP	1997	Variable	
B-65S	B-23E	Grieve Electric Oven-167-F22	2000	Variable	
B-68S	B-24E	8-Ply Laminator-368ANN	1999	Variable	
B-70S	B-25E	Minster Robotic Press-368ANN	1999	Variable	B-8C
B-71S	B-25E	Minster Robotic Press-368ANN	1999	Variable	B-8C
B-72S	B-25E	Minster Robotic Press-368ANN	1999	Variable	B-8C
B-96S	B-28E	Gruenberg Oven-368ANN	1999	500°F	
B-97S	B-29E	Grieve Walk-In Oven-368ANN	1999	80 kw	
B-98S	B-30E	Steelman Walk-In Oven-368ANN	1999	500°F	
B-99S	B-31E	TBI Booth-368ANN	1999	Variable	B-12C
B-100S	B-32E	CTA Robotic Spray Booth-368ANN	2000	Variable	B-13C
B-101S	B-33E	Sabot Cleaning Sprayer & Dryer-368ANN	2000	Variable	
Metal Fabrication – Group 00A					
A-1S	A-1E	Apex Broach Machine-167	1996	Variable	

Emission Unit ID ¹	Emission Point ID ^{1, a}	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ^{1, b}
A-109S	NDV	Lindberg/Blue Electric Oven-421	1999	Variable	
A-111S	A-18E	Grieve Electric Oven-421	1999	Variable	
A-51S	A-5E	Vacuum Pumps for EB Welder-438	1996	Variable	
A-52S	A-5E	Vacuum Pumps for EB Welder-438	1996	Variable	
A-54S	A-2E or- 6E	Hand Grinding/Buffing Station-438	1996	Variable	A-12C
A-62S	A-8E	Armil Propane Tempering Oven-438	1996	4 mmBTU/hr	
A-63S	A-9E	Modern Propane Tempering Oven- 438	1996	3 mmBTU/hr	
A-58S	A-7E	Large Abrasive Blast Systems Grit Blaster (Rm. 119) –438	1996	30 lb/hr	A-5C
A-68S	A-10E	Magnaflux Magnetic Particle Machine-438-R122	1996	Variable	
A-70S	A-12E	Work Table with Exhaust Hood-438- R122	2000	Variable	
A-73S	A-14E	Wisconsin Electric Through-Wall Oven-438-R121	1996	Variable	
A-74S	A-14E	Wisconsin Electric Oven-438-R121	1996	Variable	
A-75S	A-14E	Young & Bertke Electric Oven-438- R121	1996	Variable	
A-77S	A-15E	TIG Welding Machine-438-R121		Variable	A-6C
A-78S	A-15E	TIG Welding Machine-438-R121	1996	Variable	A-6C
A-79S	A-15E	TIG Welding Machine-438-R121	1996	Variable	A-6C
A-80S	A-15E	TIG Welding Machine-438-R121	1996	Variable	A-6C
Nozzle / Insulator Preparation – Group 00D					
D-1S	D-1E (183e)	Paint Spray Booth #1-421	1996	Variable	D-1C
D-2S	D-1E (183e)	Paint Spray Booth #2-421	1996	Variable	D-2C
D-3S	D-2E	Lab Exhaust Hood-421	1996	Variable	
D-6S	D-3E	Blu-Surf Propane-Fired Curing Oven- 421	1996	1.5 mmBTU/hr	
D-7S	D-4E	Blu-Surf Propane-Fired Curing Oven- 421	1996	0.5 mmBTU/hr	
D-8S	D-5E	Blu-Surf Propane-Fired Curing Oven- 421	1996	0.5 mmBTU/h	

Emission Unit ID ¹	Emission Point ID ^{1, a}	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ^{1, b}
D-10S	D-7E	Despatch Electric Curing Oven-421	1996	Variable	
D-49S	D-20E	Grieve Electric Oven-421	1999	Variable	
D-23S	D-8E	Rubber Mixing Machine-819	1996	2.5 gal	
D-24S	D-8E	Roll mill-819	1996	Variable	
D-29S	D-9E	Primer Station-421-CBA	2000	Variable	D-5C
D-31S	D-10E	Desma Rubber Molding Machine-421-CBA	2000	Variable	
D-32S	D-11E	Water Jet Trimmer-421-CBA	2000	Variable	
D-33S	D-12E	Water Jet Trimmer-421-CBA	2000	Variable	
D-35S	D-13E	Grieve Oven-421-SAB	2000	Variable	
D-36S	D-14E	Grieve Oven-421-SAB	2000	Variable	
D-37S	D-15E	Arburgh Injection Molding Machine-421-SAB	2000	Variable	
D-4S	OS	Lab Exhaust Hood-421-SAB	1996	Variable	
D-41S	D-16E	Sabot/Obturator Cleaning Hood	2003	Variable	
D-42S	D-17E	Sabot/Obturator Priming Booth	2003	Variable	D-7C
D-46S	D-19E	J RTV Curing Oven	2003	Variable	
ACP Composite Structures Manufacturing Area – Group 00W (Draft construction Permit R13-2754) Remove from Permit – Operations No Longer Exist and Permit R13-2754 Closed					
W-1S	NDV	Product Machining Station	2008	Variable	W-1C
W-2S	NDV	Product Machining Station	2008	Variable	W-1C
W-3S	NDV	Scrap Cutdown Station	2008	Variable	W-1C
W-4S	NDV	Mechanical Test Chamber	2008	Variable	W-1C
W-5S	W-2E	Acid Digest Station	2008		
W-6S	NDV	Ultrasonic Cleaning Stations	2008	Variable	
W-7S	W-3E	Solvent Recovery System	2008		W-2C
W-8S	W-4E	Mandrel Preparation Station	2008	Variable	

Emission Unit ID ¹	Emission Point ID ^{1, a}	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ^{1, b}
W-9S	W-5E	Mandrel Preparation Station	2008	Variable	
W-10S	W-6E	Product Cleaning Station	2008	Variable	
Medium Caliber Ammunition Area - Group 00V (R13-2579)					
V-1S	V-1E	502 GAU 8 Primer Coating Line - 376A	2004	Variable	V-1C
V-1S	V-2E	502 GAU 8 Topcoat Coating Line - 376A	2004	Variable	V-2C
V-1S	V-3E	502 GAU 8 Coating Line Oven - 376A	2004	Variable	
V-2S	V-4E	104 GAU 8 Coating Line - 376A	2004	Variable	V-3C
V-3S	V-5E	104 Rework Coating Line - 376A	2004	Variable	V-5C
V-6S	V-8E, V-9E	Fuze Line Assembly (FMU151/M758) - 376A	2004	Variable	
V-7S	V-8E, V-9E	Fuze Line Assembly (FMU154/M759) - 376A	2004	Variable	
Chemical Vapor Deposition Manufacturing Area – Bldg 385 (R13-2680) Remove from Permit – Operations No Longer Exist and Permit R13-2754 Closed					
CVD-1S	CVD-1E	Chemical Vapor Deposition Reactor	2008	5000 m2 per year	CVD-1C, CVD-2C
CVD-2S	CVD-1E	Ammonia Gas Cabinet	2008		CVD-1C
CVD-3S	CVD-1E	Boron Trichloride Gas Cabinet	2008		CVD-2C
CVD-4S	CVD-1E	Silicon Tetrachloride Gas Cabinet	2008		CVD-2C
CVD-5S	CVD-1E	Wet Bench	2008	Variable	CVD-2C
CVD-6S	CVD-2E	Fabric Heat Treat Oven	2008		
CVD-7S	NDV	Resin Coating Bench	2008		
CVD-8S	NDV	AGFM Ultrasonic Cutter	2008		
CVD-9S	NDV	Platen Press	2008		
CVD-10S	CVD-3E	Pyrolysis Furnace	2008		
CVD-11S	CVD-4E	Despatch Oven (TFD3-10-1E)	2008		
CVD-12S	NDV	Water Jet Trimmer	2008		
CVD-13S	NDV	Mazak Mill	2008		

Emission Unit ID ¹	Emission Point ID ^{1, a}	Emission Unit Description	Year Installed/ Modified	Design Capacity	Control Device ^{1, b}
CVD-14S	NDV	Slurry Mixing/Application Area	2008	Variable	
CVD-15S	CVD-5E	Despatch Oven (LBB2-18-1)	2008		
CVD-16S	NDV	Kiln	2008		
Wg-5S	Wg-1E	Auto Clave	2004	N/A	
Wg-6S	Wg-2E	Auto Clave	2004	N/A	

¹For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

^a NDV = No Direct Vent

^b DC = Dust Collector/Baghouse

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Laboratory Exhaust Hoods (Bond Room)			
Emission unit ID number: B-3E, B-2E	Emission unit name: B-2S, B-3S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Laboratory Exhaust Hood (Bond Room) (ID# B-2S) - used to mix small quantities of adhesives for the Javelin program. Vents to atmosphere through vent ID# B-3E. Laboratory Exhaust Hood (Bond Room) (ID# B-3S) - used to apply small quantities of Chemlok 234B adhesive (2-3 gallons per year). Vents to atmosphere through vent ID# B-2E.			
Manufacturer: LabConco	Model number: Unknown	Serial number: Unknown	
Construction date: 1994	Installation date: 1995	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
<i>Fuel Usage Data</i> (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	2	7.89
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	2	0.1
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on limits provided in R13-1797A.</p> <p>HAPs may include ethyl benzene, formaldehyde, glycol ethers, hexane, isocyanates, MEK, methanol, MIBK, phenol, styrene, TCE, toluene, xylene, and zinc, lead, or chromium compounds found in paints, adhesives, primers, and thinners.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Emission Limits – R30-05700011-2014: 4.1.1-4.1.4; 45CSR13, R13-1797A, A.1-A.4.

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Record Keeping – R30-05700011-2014: 3.4.1., 3.4.2., 4.2.1., 4.4.1., 4.4.2.; 45CSR13, R13-1797A, B.1., B.9.
2. Testing - R30-05700011-2014: 3.3.1- 3.3.4., 4.3.1.; 45CSR13, R13-1797A, B.2., B.8., B.9.; 45CSR30-5.1.c.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Binks Spray Booths and Weigh Out Hood			
Emission unit ID number: B-3E, B-4E	Emission unit name: Binks Spray Booths and Weigh-out Hood (B-4S, B-5S, B-49S) Bldg 368	List any control devices associated with this emission unit: B-1C, B-2C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Binks Spray Booth #1 (ID# B-4S) - used to spray paint composite cases. Vents to atmosphere through vent ID# B-3E. Binks Spray Booth #2 (ID# B-5S) - used to spray paint composite cases. Vents to atmosphere through vent ID# B-4E. Laboratory Exhaust Hood (ID# B-49S) – used to weigh out and mix paint for composite case spray painting operations. Vents to atmosphere through vent ID# B-4E. Hood was added in 2000 to eliminate solvent odor in room.			
Manufacturer: Binks	Model number: 83-2448	Serial number: Unknown	
Construction date: 1994	Installation date: 1995	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.1	0.1
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	2	2.76
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Varies	2	2.76
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions for paint booths are based on limits provided in R13-1797A. Any emissions associated with weigh-out would be counted in booth emissions because it is tied to the same stack.</p> <p>HAPs may include ethyl benzene, formaldehyde, glycol ethers, hexane, isocyanates, MEK, methanol, MIBK, phenol, styrene, TCE, toluene, xylene, and zinc, lead, or chromium compounds found in paints, adhesives, primers, and thinners.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Emission Limits – R30-05700011-2014: 4.1.1-4.1.4; 45CSR13, R13-1797A, A.1-A.3.; 45CSR§30-5.1.c.
2. Visible Emissions – R30-05700011-2014: 3.1.10., 3.1.11; 45CSR§7-3.1. – 7-8.2.; 45CSR13, R13-1797A, B.6., B.7.
3. Aerospace NESHAP – R30-05700011-2014: 3.1.9.; 45CSR34, 40CFR63, Subpart GG;

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.1. - 3.2.4., 3.4.1.-3.4.7., 3.5., 4.2.1; 4.4.1.-4.4.4. 4.5. 45CSR34, 40CFR63, Subpart GG; 45CSR30-5.1.c.; 45CSR13, R13-1797A, B.1., B.2., B.5.;
2. Testing - R30-05700011-2014: 3.3., 4.3.1.; 45CSR30-5.1.c.; 45CSR13, R13-1797A, B.2., B.8., B.9.;
3. Maintenance – R30-05700011-2014: 3.4.7.; 45CSR30-5.1.c.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Taftco Drying Ovens – Javelin Bond Room			
Emission unit ID number: B-5E, B-7E, B-8E	Emission unit name: Taftco Drying Ovens (B-11S, 25S, and 26S) Javelin Bond Room – Bldg 368	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.):			
Taftco Oven (Javelin Bond Room-Oven C) (ID# B-11S) - used to cure adhesives and as a drying oven for components. Vents to the atmosphere through vent ID# B-5E			
Taftco Large Electric Curing Oven (Javelin Bond Room, Walk-Through Oven A) (ID# B-25S) - used to heat cure composite wound components. Vents to atmosphere through vent ID# B-7E.			
--Taftco Oven (Javelin Bond Room, Oven B) (ID# B-26S) - used to cure adhesives and as drying oven. Vents to the atmosphere through vent ID# B-8E.			
Manufacturer: Taftco	Model number: Unknown	Serial number: Unknown	
Construction date: 1994	Installation date: 1995	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <u>X</u> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for drying components and curing non-HAP, non-VOC resin systems. Products cured are not regulated pollutants and there are minimal emissions.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

X Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? X Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Grieve Drying Oven, Penn Drying Oven, Lab Exhaust Hood			
Emission unit ID number: B-7E	Emission unit name: Drying Ovens (B-14S - 16S) and Exhaust Hood – Bldg 368	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Grieve Drying Oven (ID# B-14S) - used to set adhesive and keep components dry. Vents to atmosphere through vent ID# B-7E. --Penn Drying Oven (ID# B-15S) - used to store resin. Vents to atmosphere through vent ID# B-7E. --Laboratory Exhaust Hood (ID# B-16S) - used for mixing resin for winding machine use. Vents to atmosphere through vent ID# B-7E.			
Manufacturer: Grieve/Penn/Labconco	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 1995	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <u>X</u> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for drying components and curing non-HAP, non-VOC adhesive systems. Products weighed out are not regulated pollutants and there are minimal emissions.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Gas Curing Ovens, Large and Small Autoclaves (all propane fired)

Emission unit ID number: B-9E – B-14E, B-17E	Emission unit name: Gas Curing Ovens & Autoclaves (B-27S - 32S, B-48S) – Bldg 368	List any control devices associated with this emission unit:
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Gas Curing Ovens (4) (ID# B-27S, B-28S, B-29S, & B-30S) – ovens 3,4,5, and 6 are used to cure composite wound cases. Vent to atmosphere through vent ID# B-9E, B-10E, B-11E, & B-12E.

Large Autoclave (ID# B-31S) - used to cure composite wound cases. Cure may be conducted under pressure. Vents to atmosphere through vent ID# B-13E.

--Small Autoclave (ID# B-32S) - used to cure composite wound cases. Cure may be conducted under pressure. Vents to atmosphere through vent ID# B-14E.

Autoclave (ID# B-48S) - used to cure composite components manufactured using the fiber placement machines. Vents to atmosphere through vent ID# B-17E.

Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown
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Construction date: Unknown	Installation date: 1993 / 1997(B-48S only)	Modification date(s): None
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable

Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields) NA

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: 0.8 Mkw / 600 F / 300 F / Variable	Type and Btu/hr rating of burners: Unknown
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 All ovens listed use LPG. A maximum of 300,000 gallons for the composites areas ovens was used to determine PTE for the group.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Liquified Propane Gas	0.09 lbs / 100 cf	Unknown	Unknown

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		0.465
Nitrogen Oxides (NO _x)		1.86
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		0.066
Sulfur Dioxide (SO ₂)		0.0135
Volatile Organic Compounds (VOC)		0.078
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for drying components and curing non-HAP, non-VOC resin systems. There are negligible emissions associated with these units. Emissions provided in the above table are for combustion products of the propane used to fire the units. A maximum of 300,000 gallons of propane per year for the total group of ovens was used to determine PTE.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Lathes, Vacuum system, Milling Machines, and Grinder/Sander

Emission unit ID number: B-16E, B-19E	Emission unit name: Lathes, Vacuum & Mills (see in description below)	List any control devices associated with this emission unit: B-5C, B-6C
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Installed 1996

Lathes (3) (ID# B-37S, B-38S, & B-39S) – Meuser, LeBlond, and LeBlond/Makino lathes used for machining composite components. Vent to atmosphere through vacuum system (vent ID# B-16E).

--Vacuum System (ID# B-40S) - used to collect dust and material from lathes B-37S through B-39S. Two cycle system with cyclone for large pieces and dust collector following. Vents to the atmosphere through vent ID# B-16E.

--Lathes (2) (ID# B-41S & B-42S) – Mori Seiki and Dainichi F-35M lathes used for machining composite components. Units have self contained collection systems. Vent to atmosphere through Torit DownFlo particle collection system, vent ID# B-19E.

Installed 2000

Masco Gantry Mill (ID# B-53S) – used for machining composite components. Vents to atmosphere through Torit DownFlo particle collection system, vent ID# B-21E.

Bridgeport Milling Machine (ID# B-55S) – used for machining composite components. Vents to atmosphere through vacuum collection system, vent ID# B-21E.

Small Table Grinders (2) (ID# B-60S & B-61S) – used to sand composite parts. Vents to atmosphere through vacuum collection system, vent ID# B-16E.

Small Table Sander (ID# B-62S) – used to sand composite parts. Vents to atmosphere through vacuum collection system, vent ID# B-16E.

Manufacturer: See above descriptions	Model number: Unknown	Serial number: Unknown
Construction date: Unknown	Installation date: 1996 / 2000	Modification date(s): None

Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable

Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields) NA

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
<i>Emissions Data</i>			
Criteria Pollutants	Potential Emissions		
	PPH	TPY	
Carbon Monoxide (CO)			
Nitrogen Oxides (NO _x)			
Lead (Pb)			
Particulate Matter (PM _{2.5})			
Particulate Matter (PM ₁₀)			
Total Particulate Matter (TSP)		0.03	
Sulfur Dioxide (SO ₂)			
Volatile Organic Compounds (VOC)			
Hazardous Air Pollutants	Potential Emissions		
	PPH	TPY	
NA			
Regulated Pollutants other than Criteria and HAP	Potential Emissions		
	PPH	TPY	
NA			

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

Potential emissions are based on engineering estimates.
 Maximum weight machined x 5% dust generation
 100,000 lbs of parts x 5% = 5,000 lbs of dust
 Use 99% efficient cyclone dust collectors = 5,000 x 0.01 = 50 lbs PM emitted

100,000 lbs of parts per year is an estimate based on maximum production levels in composites area. 5% dust generation is an overly conservative estimate of dust generated during machining.

<p><i>Applicable Requirements</i></p> <p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <p>1. Visible Emissions – R30-05700011-2014: 3.1.10; 45CSR§7-5.1 & 7-5.2</p>
<p><u>X</u> Permit Shield</p> <p>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</p> <p>1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.1, 3.4.4., 3.4.7., 3.5.;45CSR§7-3.1.; 45CSR30-5.1.c.</p>
<p>Are you in compliance with all applicable requirements for this emission unit? <u>X</u> Yes ___ No</p> <p>If no, complete the Schedule of Compliance Form as ATTACHMENT F.</p>

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Electric Ovens			
Emission unit ID number: B-20E, B-22E	Emission unit name: Electric Ovens – B-44S, B-56S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Grieve-Hendry Small Electric Oven (ID# B-44S) - used for drying moisture from E-3 and other parts after water cleaning. Vents to atmosphere through vent ID# B-20E. Young & Bertke Electric Oven (ID# B-56S) – used to heat expand composite parts prior to machining. Vents to atmosphere through vent ID# B-22E.			
Manufacturer: See above description	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 1997 / 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used to heat treat or dry moisture from cured composite parts. No emissions are expected from these units.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Electric Oven – Bldg 167			
Emission unit ID number: B-23E	Emission unit name: Electric Oven – B-65S (Bldg 167)	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Grieve Electric Oven (ID# B-65S) – used for post-curing urethane or silicone molds. Vents to atmosphere through vent ID# B-23E.			
Manufacturer: Grieve	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Oven is used to post cure mold parts. No emissions are expected from the unit.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> 8 Ply Laminator – 368 Annex			
Emission unit ID number: B-24E	Emission unit name: 8 Ply Laminator B-68S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): 8-Ply Laminator (Room 1) (ID# B-68S) - used to laminate four 2 ply pieces together into an 8 ply sheet. Vents heat to atmosphere through vent ID# B-24E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 1999	Installation date: 1999	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Laminator is used to heat fuse thermoplastic sheets of material together to form thicker pieces. There are no VOCs in the thermoplastic. The only thing vented from the process is heat. No emissions are expected from the unit.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Minster Robotic Presses – Bldg 368 Annex			
Emission unit ID number: B-25E	Emission unit name: Minster Presses – B-70S, 71S, 72S	List any control devices associated with this emission unit: B-8C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Minster Robotic Presses (3) (Room 2) (ID# B-70S, B-71S, & ID# B-72S) - used to stamp specific shapes from thermoplastic composite laminate sheets. Vent to atmosphere through vent ID# B-25E.			
Manufacturer: Minster	Model number:	Serial number: P2-200-29730, -31, -32	
Construction date: 1999	Installation date: 1999	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on engineering estimates. Maximum weight parts cut x 5% dust generation 100,000 lbs of parts x 5% = 5,000 lbs of dust Use 99% efficient cyclone dust collectors = 5,000 x 0.01 = 50 lbs PM emitted</p> <p>100,000 lbs of parts per year is an estimate based on maximum production levels in composites area. 5% dust generation is an overly conservative estimate of dust generated during cutting.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Visible Emissions – R30-05700011-2014: 3.1.10.; 45CSR§7-5.1 & 7-5.2

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.1. 3.4.4., 3.4.7., 3.5.; 45CSR§7-3.1.; 45CSR30-5.1.c.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description 368 Annex Ovens (Gruenberg, Grieve, Steelman)			
Emission unit ID number: B-28E, 29E, 30E	Emission unit name: Electric Ovens – B-96S, 97S, 98S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Gruenberg Oven (Room 8) (ID# B-96S) – used to heat nylon to be molded onto projectile assemblies. Vents to atmosphere through vent ID# B-28E. --Grieve Walk-In Oven (Room 8) (ID# B-97S) – used to dry parts prior to use and cure adhesives and sealants applied to parts. Vents to atmosphere through vent ID# B-29E. --Steelman Walk-In Oven (Room 9) (ID# B-98S) – used to dry coated assemblies. Vents to atmosphere through vent ID# B-30E.			
Manufacturer: See above description	Model number: Unknown	Serial number: Unknown	
Construction date: 1999	Installation date: 1999	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>First 2 ovens are used to dry moisture parts or cure silicones (no VOCs). Negligible emissions are expected from these units. The Steelman unit is used to dry Humiseal coated units. All emissions from Humiseal coating process are accounted for from the spray operations. (There has been no calculated breakdown of spray losses vs. oven losses.)</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description TBI Booth-368ANN			
Emission unit ID number: B-31E	Emission unit name: TBI Booth-368ANN B-99S	List any control devices associated with this emission unit: B-12C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): TBI Booth (Room 9) (ID# B-99S) – used to mix and brush apply adhesive to projectile assemblies. Vents to atmosphere through vent ID# B-31E.			
Manufacturer: TBI	Model number: Unknown	Serial number: Unknown	
Construction date: 1999	Installation date: 1999	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,080 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	2	1.3
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	2	1.1
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on historical data, maximum production rates, and permit triggers.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description CTA Robotic Spray Booth-368ANN			
Emission unit ID number: B-32E	Emission unit name: CTA Booth-368ANN B-100S	List any control devices associated with this emission unit: B-13C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): CTA Robotic Spray Booth (Room 9) (ID# B-100S) – used to spray apply Humiseal sealant to sabots. Vents to atmosphere through vent ID# B-32E.			
Manufacturer: CTA	Model number: Unknown	Serial number: 25852	
Construction date: 2000	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,080 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	2	1.9
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Toluene	2	1.9
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on historical data, maximum production rates, and permit triggers.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Visible Emissions – R30-05700011-2014: 3.1.10; 45CSR§7-3.1. – 7-8.2.; 45CSR§30-5.1.c

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping - R30-05700011-2014; 3.2.2., 3.4.4., 3.4.7., 3.5.; 45CSR§30-5.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Sabot Cleaning Sprayer & Dryer-368ANN			
Emission unit ID number: B-33E	Emission unit name: Sabot Cleaning Sprayer & Dryer-368ANN B-101S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.):			
Sabot Cleaning Sprayer & Dryer (Room 9) (ID# B-101S) – used to water clean coated sabots. Vents to atmosphere through vent ID# B-33E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 2000	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>System uses water to clean parts. Only emissions from system would be water vapor.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Apex Broach Machine – Bldg 167			
Emission unit ID number: A-1E	Emission unit name: A-1S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Apex Broach Machine (ID# A-1S) - used to cut grooves into the interior of metal chambers providing for fragmentation. Vents to atmosphere through vent ID# A-1E.			
Manufacturer: Apex	Model number: 50T-90S	Serial number: MD-4186	
Construction date: Unknown	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,080 hours/year	
<i>Fuel Usage Data (fill out all applicable fields)</i> NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are negligible. Broaching is completed wet and turnings are large.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Vacuum pumps for EB welders – Bldg 438			
Emission unit ID number: A-5E	Emission unit name: Vacuum Pumps (A-51S, A-52S) Bldg 438	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Vacuum Pumps for EB Welders (2) (ID# A-51S & A-52S) - used to pull vacuum on the welding machines. Vent to atmosphere through vent ID# A-5E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 1996	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		0.0125
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Manganese		0.008
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions for welding operations based on escalated historical numbers (5 times 2001 rates).</p> <p>Other HAPs in welding electrodes include lead, chromium, cobalt, and nickel compounds. Emissions of these constituents were all negligible (<0.05 pounds / year).</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Hand Grinding/Buffering Station – Bldg 438			
Emission unit ID number: A-2E, A-6E	Emission unit name: Hand Grinding/Buffering Station (A-54S)	List any control devices associated with this emission unit: A-1C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Hand Grinding/Buffering Station (ID# A-54S) - used to grind or buff metal parts using small, hand-held grinding or buffing wheels. Vents to atmosphere through vent ID# A-2E (filtered) or vent ID# A-6E (louver vent).			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 1996	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.0005	0.0011
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on engineering estimates. Maximum weight of parts per hour = 100 lbs Maximum loss of part through dusting = 0.5 lbs Use 99.9% efficient cyclone dust collectors = $0.5 \times 0.001 = 0.0005$ lbs PM emitted per hour</p>		

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Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Visible Emissions – R30-05700011-2014: 3.1.10; 45CSR§7-5.1 & 7-5.2.; 45CSR§30-5.1.c

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.3., 3.4.4., 3.4.7., 3.5.; 45CSR§7-3.1.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Gas Curing Ovens, Large and Small Autoclaves (all propane fired)			
Emission unit ID number: A-8E, A-9E	Emission unit name: Propane Tempering Ovens (A-62S, A-63S) – Bldg 438	List any control devices associated with this emission unit:	
<p>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</p> <p>Propane Fired Tempering Oven (ID# A-62S) - used to temper metal components. Vents to atmosphere through vent ID# A-8E.</p> <p>--Propane Fired Normalizing Oven (ID# A-63S) - used to temper metal components. Vents to atmosphere through vent ID# A-9E.</p>			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, is it? <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
Maximum design heat input and/or maximum horsepower rating: 0.8 Mkw / 600 F / 300 F / Variable		Type and Btu/hr rating of burners: Unknown	
<p>List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.</p> <p>All ovens listed use LPG. A maximum of 300,000 gallons for the composites areas ovens was used to determine PTE for the group.</p>			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Liquified Propane Gas	0.09 lbs / 100 cf	Unknown	Unknown

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.08	0.363
Nitrogen Oxides (NO _x)	0.33	1.45
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.012	0.052
Sulfur Dioxide (SO ₂)	0.002	0.0105
Volatile Organic Compounds (VOC)	0.014	0.061
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for tempering metal parts. There are no emissions associated with these units other than propane combustion emissions. Emissions provided in the above table are for combustion products of the propane used to fire the units. A maximum of 234,000 gallons of propane per year for both ovens combined was used to determine PTE.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Large Abrasive Blast Systems Grit Blaster (Rm. 119)			
Emission unit ID number: A-7E	Emission unit name: Grit Blaster (Rm. 119) – A-58S	List any control devices associated with this emission unit: A-5C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Large Abrasive Blast Systems Grit Blaster (Rm. 119) (ID# A-58S) - used to grit blast larger components prior to finishing operations. Vents to the atmosphere through vent ID# A-7E.			
Manufacturer: Abrasive Blast Systems	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,080 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.02	0.021
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
NA		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on engineering estimates. Maximum weight of grit per hour = 20 lbs Use 99.9% efficient cyclone dust collectors = 20 x 0.001 = 0.02 lbs PM emitted</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Visible Emissions – R30-05700011-2014: 3.1.10; 45CSR§7-5.1 & 7-5.2.; 45CSR§30-5.1.c

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.2. 3.4.4.3.4.7., 3.5.; 45CSR§7-3.1.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Magnetic Particle Machine - Inspection			
Emission unit ID number: A-10E	Emission unit name: Mag Particle Machine – A-68S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Magnaflux Magnetic Particle Machine (ID# A-68S) – used to magnetize steel components for inspection using a mineral oil based carrier agent. Components are demagnetized prior to processing. Vents to atmosphere through vent ID A-10E.			
Manufacturer: Magnaflux	Model number: Unknown	Serial number: 201235	
Construction date: Unknown	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
NA		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>No emissions are expected from this unit.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Work Table with Exhaust Hood (Inspection Area)			
Emission unit ID number: A-12E	Emission unit name: Exhaust Hood – A-70S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Work Table with Exhaust Hood (ID# A-70S) – used to remove fumes during dye penetrant inspection operations. Vents to atmosphere through vent ID# A-12E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 2000	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,160 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.25	0.5
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
NA		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential to emit based on maximum amount of dye penetrant materials to be used in a year (~1,000 pounds). Product ingredients include mineral oils, naphtha (different grades), Isopropanol, and acetone. Use over conservative estimate of 100% loss.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description 438 Welding Area Ovens (Wisconsin (2), Young & Bertke)			
Emission unit ID number: A-14E	Emission unit name: Electric Ovens – A-73S, 74S, 75S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Weld Shop Area (Room 121) --Wisconsin Electric Through-Wall Oven (ID# A-73S) – used for tempering steel prior to welding operations. Vents to atmosphere through vent ID# A-14E. --Wisconsin Electric Oven (ID# A-74S) – used for tempering steel prior to welding. Vents to atmosphere through vent ID# A-14E. --Young & Bertke Electric Oven (ID# A-75S) – used for tempering steel prior to welding. Vents to atmosphere through vent ID# A-14E.			
Manufacturer: See above description	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 8,760 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <u>X</u> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
NA		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are electric powered and are used only to heat temper metal parts prior to welding. No emissions are expected from these ovens.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description TIG Welding Machines			
Emission unit ID number: A-15E	Emission unit name: TIG Welders – A-77S – A-80S	List any control devices associated with this emission unit: A-6C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): TIG Welding Machines (4) (ID# A-77S, A78S, A-79S, & A-80S) – used to weld metal components and chambers. Vent to atmosphere through vent ID# A-15E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,160 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		0.0125
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Manganese		0.008
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions for welding operations based on escalated historical numbers (5 times 2001 rates).</p> <p>Other HAPs in welding electrodes include lead, chromium, cobalt, and nickel compounds. Emissions of these constituents were all negligible (<0.05 pounds / year).</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Paint Spray Booths 1 & 2 – Bldg 421			
Emission unit ID number: D-1E	Emission unit name: Paint Spray Booths (D-1S, D-2S) Bldg 421	List any control devices associated with this emission unit: D-1C, D-2C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Paint Spray Booth #1 (ID# D-1S) - used to apply either Chemlok materials to the interior of the nozzles or paint products to the exterior of them. Vents to atmosphere through vent ID# D-1E. --Paint Spray Booth #2 (ID# D-2S) - used to apply either Chemlok materials to the interior of the nozzles or paint products to the exterior of them. Vents to atmosphere through vent ID# D-1E.			
Manufacturer: Binks	Model number: 83-2448	Serial number: Unknown	
Construction date: 1996	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,080 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.5	0.1772
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	5.37	5.85
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	2.09	2.864
TCE	2.09	0.125
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions for paint booths are based on limits provided in R13-2037A.</p> <p>HAPs may include ethyl benzene, formaldehyde, glycol ethers, hexane, isocyanates, MEK, methanol, MIBK, phenol, styrene, TCE, toluene, xylene, and zinc, lead, or chromium compounds found in paints, adhesives, primers, and thinners.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Emission Limits – R30-05700011-2014: 5.1.1.-5.1.4; 45CSR13, R13-2037A, A.3., A.4., B-3.; 45CSR§30-12.7.
2. Visible Emissions – R30-05700011-2014: 3.1.10; 45CSR§7-3.1. – 7-8.2; 45CSR13, R13-2037A, B.5., B.6.
3. Aerospace NESHAP – R30-05700011-2014: 3.1.9.; 45CSR34, 40CFR63, Subpart GG; 45CSR§30-5.1.c.; 45CSR13, R13-2037A, B.7.
- 4.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.1.-3.2.4., 3.4.1.-3.4.7., 3.5., 5.2.1; 5.4.1.-5.4.4.; 45CSR13, R13-2037A, B.1., B.7.; 45CSR30-5.1.c.; 45CSR34, 40CFR63, Subpart GG; 45CSR 30-5.1.c.
2. Testing - R30-05700011-2014: 3.1.11., 3.3.1.-3.3.4., 5.3.1.; 45CSR13, R13-2037A, B.9.; 45CSR30-5.1.c.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Laboratory Exhaust Hood – Bldg 421			
Emission unit ID number: D-2E	Emission unit name: D-3S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Lab Exhaust Hoods (1) (ID# D-3S) - used for mixing small quantities of adhesives and coatings. Vent to atmosphere through vent ID# D-2E.			
Manufacturer: LabConco	Model number: Unknown	Serial number: Unknown	
Construction date: 1996	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,080 hours/year	
<i>Fuel Usage Data</i> (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	1	0.5
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	1	0.1
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on historical data, maximum production rates, and permit triggers.</p> <p>HAPs may include ethyl benzene, formaldehyde, glycol ethers, hexane, isocyanates, MEK, methanol, MIBK, phenol, styrene, TCE, toluene, xylene, and zinc, lead, or chromium compounds found in paints, adhesives, primers, and thinners.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Blu-Surf Propane-Fired Curing Ovens-421 (3 units)			
Emission unit ID number: D-3E – D-5E	Emission unit name: Gas Curing Ovens (D-6S - 8S) – Bldg 421	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Blu-Surf Propane-Fired Curing Ovens (3) (ID# D-6S, D-7S, D-8S, & D-9S) - used to cure rubber materials or cure adhesives on larger bonded parts. Vent to atmosphere through vent ID# D-3E, D-4E, D-5E, & D-6E. One oven was not being utilized and was removed from the building and placed in storage.			
Manufacturer: Blu-Surf	Model number: Unknown	Serial number: Unknown	
Construction date: 1996	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		If yes, is it? <input checked="" type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired	
Maximum design heat input and/or maximum horsepower rating: Unknown		Type and Btu/hr rating of burners: Unknown	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each. The 4 ovens listed use LPG. A maximum of 30 gallons/hr total for the units was used to determine PTE for the group.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Liquified Propane Gas	0.09 lbs / 100 cf	Unknown	Unknown

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		0.203
Nitrogen Oxides (NO _x)		0.812
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		0.029
Sulfur Dioxide (SO ₂)		0.006
Volatile Organic Compounds (VOC)		0.034
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for drying components and curing rubber and adhesive systems. There are negligible emissions associated with these units. Emissions provided in the above table are for combustion products of the propane used to fire the units. A maximum of 131,000 gallons of propane per year (~30 gal/hr) for the total group of ovens was used to determine PTE.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Despatch Electric Curing Oven-421			
Emission unit ID number: D-7E	Emission unit name: Despatch Electric Curing Oven (D-10S) – Bldg 421	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Despatch Electric Curing Oven (ID# D-10S) - used to cure adhesives on small bonded parts. Vents to atmosphere through vent ID# D-7E.			
Manufacturer: Despatch	Model number: Unknown	Serial number: Unknown	
Construction date: 1996	Installation date: 1996	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for drying components and curing adhesive systems on small parts. The emissions associated with this unit are negligible.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Despatch Electric Curing Oven-421			
Emission unit ID number: D-20E	Emission unit name: Grieve Electric Curing Oven (D-49S) – Bldg 421	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Grieve Electric Oven (ID# D-49S) – used for curing phenolic resin for blast tubes. Vents to atmosphere through vent ID#D-20E. Moved from 167 to 421.			
Manufacturer: Grieve	Model number: Unknown	Serial number: Unknown	
Construction date: 1999	Installation date: 1999	Modification date(s): Moved to 421 in 2007	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Oven is used for curing phenolic parts. The emissions associated with this unit are negligible.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description Rubber Mixing Machine & Roll Mill

Emission unit ID number: D-8E	Emission unit name: Rubber Mixing Machine & Roll Mill (D-23S, D-24S) – Bldg 421	List any control devices associated with this emission unit:
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Rubber Mixing Machine (ID# D-23S) - used to mix rubber insulation in batches. A vacuum system connects to the system which vents to the atmosphere through ID# D-8E.

--Roll mill (ID# D-24S) - used to mill and mix rubber from the mixing machine. A vacuum system connects to the system which vents to the atmosphere through ID# D-8E.

Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown
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Construction date: 1996	Installation date: 1996	Modification date(s): None
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Mixer is 2.5 gallons

Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year
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Fuel Usage Data (fill out all applicable fields) NA

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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Maximum design heat input and/or maximum horsepower rating:	Type and Btu/hr rating of burners:
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Dust collector (D-4C) was installed originally due to unknowns in the mixing process. Upon startup, it was determined there are no particulate losses from the unit (very little dusting during mixing). Therefore, the dust collector is not in use.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Primer Station-421-CBA			
Emission unit ID number: D-9E	Emission unit name: Primer Station (D-29S) Bldg 421	List any control devices associated with this emission unit: D-5C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Primer Station (ID# D-29S) – exhaust booth where an adhesive mixture is spray applied to the end of each base case to prepare for the addition of a molded rubber piece. Vents through a dry filter (D-5C) to atmosphere through vent D-9E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 2000	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,920 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.004	0.005
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	1.64	2.39
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	1.31	1.916
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on historical data, maximum production rates, and permit triggers.</p> <p>HAPs include methanol and toluene found in primer and thinner.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Visible Emissions – R30-05700011-2014: 3.1.10; 45CSR§7-3.1. – 7-8.2.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping - R30-05700011-2014; 3.2.2., 3.4.4., 3.5.; 45CSR§30-5.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Desma Rubber Molding Machine			
Emission unit ID number: D-10E	Emission unit name: Desma Rubber Molding Machine (D-31S) Bldg 421	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Desma Rubber Molding Machine (ID# D-31S) – open station where molds are attached to base case units and injection filled with rubber compound. Vents to atmosphere through vent ID# D-10E. This unit originally was used with a spray mold release compound. The process was updated in 2003 to eliminate the use of the mold release. Tooling was sent off-site for a non-stick coating process, eliminating the need for mold release.			
Manufacturer: Desma	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,920 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Emissions were eliminated by the use of new tooling that prevents nylon from sticking to the molds.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Water Jet Trimmers (2)			
Emission unit ID number: D-11E, D-12E	Emission unit name: Water Jet Trimmers (D-32S, D-33S) Bldg 421	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Water Jet Trimmers (2) (ID# D-32S & D-33S) – cutting system which uses a pressurized water jet to trim rubber molding to specification. Water vapor emissions only. Vent to atmosphere through vent ID# D-11E & D-12E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,920 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Emissions from units consist of water vapor only.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (*Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.*)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Grieve Electric Ovens (2) - 421			
Emission unit ID number: D-13E, D-14E	Emission unit name: Grieve Electric Ovens (D-35S, D-36S) – Bldg 421	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Grieve Ovens (2) (ID# D-35S & D-36S) – electric oven used to preheat the sabot units before installing the insert adapter. Vent to atmosphere through vent ID# D-13E & D-14E.			
Manufacturer: Grieve	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for drying components. There are no known emissions associated with this unit.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Arburgh Injection Molding Machine			
Emission unit ID number: D-15E	Emission unit name: Arburgh Injection Molding Machine (D-37S) – Bldg 421	List any control devices associated with this emission unit:	
<p>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</p> <p>Arburgh Injection Molding Machine (ID# D-37S) – injection molding system which is used to mold nylon around the exterior end of the sabot unit. Vents to atmosphere through vent ID# D-15E.</p>			
Manufacturer: Arburgh	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2000	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Due to the temperature of the nylon being processed, emissions associated with this unit would be negligible.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Sabot/Obturator Cleaning Hood – Bldg 167			
Emission unit ID number: D-16E	Emission unit name: D-41S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Sabot/Obturator Cleaning Hood (ID# D-41S) – exhaust booth where the aft end of the sabots and ID portion of the obturators are degreased using Acetone followed by Isopropanol alcohol to prepare the components for adhesive primer application. Vents to atmosphere through vent ID# D-16E.			
Manufacturer: LabConco	Model number: Unknown	Serial number: Unknown	
Construction date: 2009	Installation date: 2009	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 1,560 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.2	0.17
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on historical data, maximum production rates, and permit triggers.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> Sabot/Obturator Primer Station-167			
Emission unit ID number: D-17E	Emission unit name: Primer Station (D-42S) Bldg 167	List any control devices associated with this emission unit: D-7C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Sabot /Obturator priming booth (ID# D-42S) – spray booth where an adhesive primer is spray applied to the aft end of the sabot assembly prior to rubber potting process. Vents through a dry filter (D-7C) through vent ID# D-17E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 2003	Installation date: 2003	Modification date(s): 2008	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 2,920 hours/year	
<i>Fuel Usage Data (fill out all applicable fields)</i> NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)	0.004	0.005
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.16	0.17
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
None		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on historical data, maximum production rates, and permit triggers.</p> <p>Process uses no HAPs.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Visible Emissions – R30-05700011-2014: 3.1.10.; 45CSR§7-3.1. – 7-8.2; 45CSR13.
2. Aerospace NESHAP – R30-05700011-2014: 3.1.9.; 45CSR34, 40CFR63, Subpart GG; 45CSR§30-5.1.c.

It is requested that the Aerospace NESHAP requirements for this point be deleted, since there are no HAPs used in the process.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping - R30-05700011-2014; 3.2.2., 3.4.4.-3.4.6., 3.5.; 45CSR§30-5.; 45CSR34, 40CFR63, Subpart GG

It is requested that the Aerospace NESHAP requirements for this point be deleted, since there are no HAPs used in the process.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> J RTV Curing Oven - 167			
Emission unit ID number: D-19E	Emission unit name: J RTV Curing Oven (D-46S) – Bldg 167	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): J RTV Curing Oven (ID# D-46S) – Batch oven used to cure silicone potting compound after filling. Vents to atmosphere through vent ID# D-19E.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 2003	Installation date: 2003	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: 4,380 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
N/A		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Ovens are used for curing silicone. There are no emissions of criteria pollutants from this unit.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description 502 GAU-8 Coating Line			
Emission unit ID number: V-1E, V-2E, V-3E	Emission unit name: V-1S	List any control devices associated with this emission unit: V-1C, V-2C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): 502 GAU 8 Primer Coating Line, Topcoat Coating Line and Oven – Used to prime, topcoat, and dry coatings on medium caliber ammunition shells. The three units are co-located in one equipment housing with three exhaust points.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2004	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: 500 projectiles	Maximum Annual Throughput: 1.56 million projectiles	Maximum Operating Schedule: 3,120 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	2.2	3.38
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	1.34	2.08
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on limits provided in R13-2579A.</p> <p>HAPs may include antimony compounds, chromium compounds, lead compounds, glycol ethers, dioctyl phthalate, ethyl benzene, formaldehyde, hexane, methanol, MEK, MIBK, phenol, toluene, and xylene.</p>		

<p><i>Applicable Requirements</i></p> <p>List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.</p> <ol style="list-style-type: none">1. Emission Limits – R30-05700011-2014: 3.1.10., 6.1.1., 6.1.2., 6.1.8.-6.1.11; 45CSR13, R13-2579A, A.1., A.2., A.8.-A.11., B.2.; 45CSR§7-3.1.;2. Production Limits - R30-05700011-2014: 6.1.3.; 45CSR13, R13-2579A, A.3.
<p><input checked="" type="checkbox"/> Permit Shield</p> <p>For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)</p> <ol style="list-style-type: none">1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.2., 3.4.1., 3.4.2., 3.5., 6.2.1., 6.4.1., 6.4.2., 6.5.1.; 45CSR13, R13-2579A, B.2., B.3., B.4., B.5.; 45CSR§7-3.1.; 45CSR30-5.1.c.2. Testing - R30-05700011-3014: 3.1.11., 3.3.1., 6.3.1.; 45CSR13, R13-2579A, B.4., B.6.;
<p>Are you in compliance with all applicable requirements for this emission unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, complete the Schedule of Compliance Form as ATTACHMENT F.</p>

ATTACHMENT E - Emission Unit Form			
Emission Unit Description 104 GAU-8 Coating Line			
Emission unit ID number: V-4E	Emission unit name: V-2S	List any control devices associated with this emission unit: V-3C, V-4C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): 104 GAU-8 Coating Line – Used to prime, topcoat, and dry coatings on medium caliber ammunition shells. The 2 spray units are co-located in one equipment housing with a single exhaust point.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2004	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: 750 projectiles	Maximum Annual Throughput: 4.68 million projectiles	Maximum Operating Schedule: 6,240 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	0.1	0.23
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	3.3	10.15
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	2.01	6.25
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on limits provided in R13-2579A.</p> <p>HAPs may include antimony compounds, chromium compounds, lead compounds, glycol ethers, dioctyl phthalate, ethyl benzene, formaldehyde, hexane, methanol, MEK, MIBK, phenol, toluene, and xylene.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Emission Limits – R30-05700011-2014: 3.1.10., 6.1.1., 6.1.2., 6.1.8.-6.1.11; 45CSR13, R13-2579A, A.1., A.2., A.8.-A.11., B.2. ; 45CSR§7-3.1.;
2. Production Limits - R30-05700011-2014: 6.1.4.; 45CSR13, R13-2579A, A.4.

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.2., 3.4.1., 3.4.2., 3.5., 6.2.1., 6.4.1., 6.4.2., 6.5.1.; 45CSR13, R13-2579A, B.2., B.3., B.4., B.5.; 45CSR§7-3.1.; 45CSR30-5.1.c.
2. Testing - R30-05700011-3014: 3.1.11., 3.3.1., 6.3.1.; 45CSR13, R13-2579A, B.4., B.6.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description 104 Rework Coating Line			
Emission unit ID number: V-5E	Emission unit name: V-3S	List any control devices associated with this emission unit: V-5C	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): 104 GAU-8 Rework Coating Line – Used for touchup of painted units.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2004	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: 100 projectiles	Maximum Annual Throughput: 624,000 projectiles	Maximum Operating Schedule: 6,240 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)	0.1	0.24
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	1.3	3.79
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	0.77	2.38
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on limits provided in R13-2579A.</p> <p>HAPs may include antimony compounds, chromium compounds, lead compounds, glycol ethers, dioctyl phthalate, ethyl benzene, formaldehyde, hexane, methanol, MEK, MIBK, phenol, toluene, and xylene.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Emission Limits – R30-05700011-2014: 3.1.10., 6.1.1., 6.1.2., 6.1.8.-6.1.11; 45CSR13, R13-2579A, A.1., A.2., A.8.-A.11., B.2. ; 45CSR§7-3.1.;
2. Production Limits - R30-05700011-2014: 6.1.5.; 45CSR13, R13-2579A, A.5.

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For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.2.2., 3.4.1., 3.4.2., 3.5., 6.2.1., 6.4.1., 6.4.2., 6.5.1.; 45CSR13, R13-2579A, B.2., B.3., B.4., B.5.; 45CSR§7-3.1.; 45CSR30-5.1.c.
2. Testing - R30-05700011-3014: 3.1.11., 3.3.1., 6.3.1.; 45CSR13, R13-2579A, B.4., B.6.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
<i>Emission Unit Description</i> FMU151/M758 Fuze Line			
Emission unit ID number: V-8E	Emission unit name: Fuze Line V-6S, V-7S	List any control devices associated with this emission unit:	
Provide a description of the emission unit (type, method of operation, design parameters, etc.): Fuze Line Assembly (FMU151/M758) – Used for the assembly of small fuze components. Processing includes the use of mold releases, solvents, and adhesives.			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2004	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: 325 fuzes	Maximum Annual Throughput: 2,028 million fuzes	Maximum Operating Schedule: 6,240 hours/year	
<i>Fuel Usage Data</i> (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.9	2.51
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	0.24	0.75
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on limits provided in R13-2579A.</p> <p>HAPs may include antimony compounds, chromium compounds, lead compounds, glycol ethers, dioctyl phthalate, ethyl benzene, formaldehyde, hexane, methanol, MEK, MIBK, phenol, toluene, and xylene.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Emission Limits – R30-05700011-2014: 6.1.1., 6.1.2., 6.1.8.-6.1.11; 45CSR13, R13-2579A, A.1., A.2., A.8.-A.11., B.2.
2. Production Limits - R30-05700011-2014: 6.1.6., 6.1.7.; 45CSR13, R13-2579A A.6., A.7.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.4.1., 3.4.2., 3.5., 6.2.1., 6.4.1., 6.4.2., 6.5.1.; 45CSR13, R13-2579A, B.2., B.3., B.4., B.5.; 45CSR30-5.1.c.
2. Testing - R30-05700011-3014: 3.1.11., 3.3.1., 6.3.1.; 45CSR13, R13-2579A, B.4., B.6.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description FMU154/M759 Fuze Line			
Emission unit ID number: V-9E	Emission unit name: Fuze Line V-6S	List any control devices associated with this emission unit:	
<p>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</p> <p>Fuze Line Assembly (FMU154/M759) – Used for the assembly of small fuze components. Processing includes the use of mold releases, solvents, and adhesives.</p>			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: Unknown	Installation date: 2004	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: 325 fuzes	Maximum Annual Throughput: 2,028 million fuzes	Maximum Operating Schedule: 6,240 hours/year	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	0.4	1.04
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Various*	0.05	0.14
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Potential emissions are based on limits provided in R13-2579A.</p> <p>HAPs may include antimony compounds, chromium compounds, lead compounds, glycol ethers, dioctyl phthalate, ethyl benzene, formaldehyde, hexane, methanol, MEK, MIBK, phenol, toluene, and xylene.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

1. Emission Limits – R30-05700011-2014: 6.1.1., 6.1.2., 6.1.8.-6.1.11; 45CSR13, R13-2579A, A.1., A.2., A.8.-A.11., B.2.
2. Production Limits - R30-05700011-2014: 6.1.6.; 45CSR13, R13-2579A A.6.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

1. Monitoring & Recordkeeping – R30-05700011-2014: 3.4.1., 3.4.2., 3.5., 6.2.1., 6.4.1., 6.4.2., 6.5.1.; 45CSR13, R13-2579A, B.2., B.3., B.4., B.5.; 45CSR30-5.1.c.
2. Testing - R30-05700011-3014: 3.1.11., 3.3.1., 6.3.1.; 45CSR13, R13-2579A, B.4., B.6.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

ATTACHMENT E - Emission Unit Form			
Emission Unit Description Autoclaves			
Emission unit ID number: Wg-1E, Wg-2E	Emission unit name: Wg-1S, Wg-2S	List any control devices associated with this emission unit:	
<p>Provide a description of the emission unit (type, method of operation, design parameters, etc.):</p> <p>Autoclaves (Wg-1S, Wg-2S) – Autoclaves remaining in building after Global Hawk program shut down. Would be used to cure resin systems at elevated pressure and temperature. Electric powered. Vent to atmosphere through Wg-1E, and Wg-2E.</p> <p>THESE UNITS ARE NOT CURRENTLY BEING USED.</p>			
Manufacturer: Unknown	Model number: Unknown	Serial number: Unknown	
Construction date: 2004	Installation date: 2004	Modification date(s): None	
Design Capacity (examples: furnaces - tons/hr, tanks - gallons): Variable			
Maximum Hourly Throughput: Variable	Maximum Annual Throughput: Variable	Maximum Operating Schedule: Currently not in use	
Fuel Usage Data (fill out all applicable fields) NA			
Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No		If yes, is it? ___ Indirect Fired ___ Direct Fired	
Maximum design heat input and/or maximum horsepower rating:		Type and Btu/hr rating of burners:	
List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.			
Describe each fuel expected to be used during the term of the permit.			
Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
NA		
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>No regulated pollutants are expected from curing process.</p>		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

There are no underlying applicable requirements associated with this equipment.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

There are no specified monitoring/testing/recordkeeping/ reporting requirements for this equipment.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: A-5C	List all emission units associated with this control device. A-7E	
Manufacturer: Unknown	Model number: Unknown	Installation date: 1996
Type of Air Pollution Control Device:		
<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	97.5	97.5
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).		
Single cyclone with baghouse. Unit runs at ambient pressure and temperature.		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
If Yes, Complete ATTACHMENT H		
If No, Provide justification.		
Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).		
Describe the parameters monitored and/or methods used to indicate performance of this control device.		
Pressure drop is monitored to determine cleaning cycles. Units undergo preventive maintenance annually.		

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: A-12C	List all emission units associated with this control device. A-2E
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Manufacturer: Unknown	Model number: Unknown	Installation date: 1996
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Type of Air Pollution Control Device:

- | | | |
|---|---|--|
| <input type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input checked="" type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | <input type="checkbox"/> Dry Plate Electrostatic Precipitator | |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	97.5	97.5

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Single cyclone. Unit runs at ambient pressure and temperature.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Pressure drop is monitored to determine cleaning cycles. Units undergo preventive maintenance annually.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: B-1C, B-2C	List all emission units associated with this control device. B-3E, B-4E (Javelin Paint booths in Bldg 368)
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Manufacturer: Various	Model number: Unknown	Installation date: 1995
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Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	90	90

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Booths have a minimum face velocity of 100 fpm at ambient pressure and temperature.
 Manometers indicate pressure drop to indicate when filters need changed.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No
 If Yes, **Complete ATTACHMENT H**
 If No, **Provide justification.**
 Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.
 Manometers indicate pressure drop to indicate when filters need changed.

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: B-5C, B-6C, B-7C	List all emission units associated with this control device. B-16E, B-19E, B-21E	
Manufacturer: Torit	Model number: Unknown	Installation date: 1996
Type of Air Pollution Control Device:		
<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	97.5	97.5
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Single compartment filter with 16 Dacron fiber bags using timed pulses of compressed air backflowing through filters to clean. Unit runs at ambient pressure and temperature.		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Complete ATTACHMENT H If No, Provide justification. Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Pressure drop is monitored to determine cleaning cycles. Units undergo preventive maintenance annually and collectors are replaced if needed.		

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: B-5C, B-6C, B-7C	List all emission units associated with this control device. B-16E, B-19E, B-21E
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Manufacturer: Torit	Model number: Unknown	Installation date: 1996
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Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	97.5	97.5

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Single compartment filter with 16 Dacron fiber bags using timed pulses of compressed air backflowing through filters to clean. Unit runs at ambient pressure and temperature.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No
 If Yes, **Complete ATTACHMENT H**
 If No, **Provide justification.**
 Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.
 Pressure drop is monitored to determine cleaning cycles. Units undergo preventive maintenance annually and collectors are replaced if needed.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: B-12C	List all emission units associated with this control device. B-31E (TBI booth in Bldg 368)
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Manufacturer: TBI	Model number: Unknown	Installation date: 2000
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Type of Air Pollution Control Device:

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | <input type="checkbox"/> Dry Plate Electrostatic Precipitator | |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	90	90

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Booth has a minimum face velocity of 100 fpm at ambient pressure and temperature.
 Manometers indicate pressure drop to indicate when filters need changed.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.
 Manometers indicate pressure drop to indicate when filters need changed.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: B-13C	List all emission units associated with this control device. B-32E (CTI spray booth in Bldg 368)	
Manufacturer: CTI	Model number: Unknown	Installation date: 2000

Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	90	90

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Booth has a minimum face velocity of 100 fpm at ambient pressure and temperature.
 Manometers indicate pressure drop to indicate when filters need changed.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No
If Yes, Complete ATTACHMENT H
If No, Provide justification.
 Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.
 Manometers indicate pressure drop to indicate when filters need changed.

ATTACHMENT G - Air Pollution Control Device Form		
Control device ID number: D-1C, D-2C	List all emission units associated with this control device. D-1E (Paint booths in Bldg 421 Bond Room)	
Manufacturer: Labconco	Model number: Unknown	Installation date: 1996
Type of Air Pollution Control Device:		
<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	
List the pollutants for which this device is intended to control and the capture and control efficiencies.		
Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	90	90
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). Booths have a minimum face velocity of 100 fpm at ambient pressure and temperature. Manometers indicate pressure drop to indicate when filters need changed.		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Complete ATTACHMENT H If No, Provide justification. Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).		
Describe the parameters monitored and/or methods used to indicate performance of this control device. Manometers indicate pressure drop to indicate when filters need changed.		

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
D-5C

List all emission units associated with this control device.
D-9E (CBA Primer booth in Bldg 421)

Manufacturer:
Labconco

Model number:
Unknown

Installation date:
2000

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> Dry Plate Electrostatic Precipitator |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	90	90

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Booth has a minimum face velocity of 100 fpm at ambient pressure and temperature.
 Manometers indicate pressure drop to indicate when filters need changed.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.**

Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Manometers indicate pressure drop to indicate when filters need changed.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: D-7C	List all emission units associated with this control device. D-17E (Sabot/Obturator Primer booth in Bldg 167)
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Manufacturer: Labconco	Model number: Unknown	Installation date: 2003
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Type of Air Pollution Control Device:

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | <input type="checkbox"/> Dry Plate Electrostatic Precipitator | |

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	90	90

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Booth has a minimum face velocity of 100 fpm at ambient pressure and temperature.
 Manometers indicate pressure drop to indicate when filters need changed.

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No

If Yes, Complete ATTACHMENT H

If No, Provide justification.

Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.
 Manometers indicate pressure drop to indicate when filters need changed.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: V-1C, V-2C, V-3C, V-5C	List all emission units associated with this control device. V-1E, V-2E, V-4E, V-5E (502 GAU 8 Coating Line, 104 Coating Line, & 104 Rework Line)	
Manufacturer: Unknown	Model number: Unknown	Installation date: 2004

Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
Particulate matter	90	90

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Booths have a minimum face velocity of 100 fpm at ambient pressure and temperature.
 Filters are checked before each run to ensure they are seated correctly and not overloaded.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes No
If Yes, Complete ATTACHMENT H
If No, Provide justification.
 Potential pre-control device annual emissions of applicable regulated air pollutants are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3).

Describe the parameters monitored and/or methods used to indicate performance of this control device.
 Filters are checked before each run to ensure they are seated correctly and not overloaded.

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

CAM APPLICABILITY DETERMINATION

- 1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to EACH regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet all of the following criteria (*If No, then the remainder of this form need not be completed*): YES NO **
- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is NOT exempt;
- LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:
- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
 - Stratospheric Ozone Protection Requirements.
 - Acid Rain Program Requirements.
 - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
 - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
- d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
- e. The PSEU is NOT an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

- 2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit: **Not Applicable**
- RENEWAL APPLICATION. ALL PSEUs for which a CAM plan has NOT yet been approved need to be addressed in this CAM plan submittal.
- INITIAL APPLICATION (submitted after 4/20/98). ONLY large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.
- SIGNIFICANT MODIFICATION TO LARGE PSEUs. ONLY large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, Only address the appropriate monitoring requirements affected by the significant modification.

** **Rationale for CAM Exemption:** The ATK Missile Subsystems & Components Division/Allegany Ballistics Laboratory manufacturing facility does not own or operate a subject pollutant-specific emissions unit as defined at 40 C.F.R. §64.1, because all plant control devices either have potential pre-control device annual emissions of applicable regulated air pollutants that are less than major source levels, and thus are exempt per 40 C.F.R. §64.2(a)(3), or are already subject to a Title V permit that specifies a continuous compliance determination method as defined in §64.1, and thus are exempt from CAM requirements per 40 C.F.R. §64.2(b)(1)(vi), or are not subject to a regulated air pollutant emission limitation or standard, and thus are not subject to CAM requirements per 40 C.F.R. §64.2(a)(1)(i).

3) ^a BACKGROUND DATA AND INFORMATION

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU in order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
Not Applicable					
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

^a If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

^b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA			
Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.			
4a) PSEU Designation: Not Applicable	4b) Pollutant:	4c) ^a Indicator No. 1:	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:			
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:			
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:			
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:			
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):			
^d Provide the <u>MONITORING FREQUENCY</u> :			
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:			
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:			

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:
 Not Applicable

6b) Regulated Air Pollutant:

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

**CAM Assessment for NGIS- Alliant Techsystems Operations LLC / Allegany Ballistics Lab
R30-05700011-2014, Part 2 of 3 Title V Renewal Application**

Not CAM - already subject to Title V permit continuous compliance determination method as defined in §64.1

Not CAM - potential pre-control device annual emissions of applicable regulated air pollutants less than major source levels

Not CAM - not subject to pollutant emission limit or standard.

1.0 Emission Units

Control Devices					
Control Device ID	Emission Point ID	Control Device Description	Year Installed / Modified	Design Capacity	Comments
B-1C	B-3E	Fabric filter for spray booth	1995	90-95% (PM)	
B-2C	B-4E	Fabric filter for spray booth	1995	90-95% (PM)	
B-5C	B-16E	Cyclone dust collector for lathe vacuum	1996	99.9% (PM)	
B-6C	B-19E	Cyclone dust collector for lathes	1996	99.9% (PM)	
B-7C	B-21E	Cyclone dust collector for gantry mill	2000	99.9% (PM)	
B-8C	B-25E	Cyclone dust collector for Minster presses	1999	99.9% (PM)	
B-9C	B-26E	Fabric filter for DownFlo Exhaust Table	1999	90-95% (PM)	
B-12C	B-31E	Fabric filter for spray booth	1999	90-95% (PM)	
B-13C	B-32E	Fabric filter for spray booth	2000	90-95% (PM)	
A-2E or-6E	A-2E or-6E	Cyclone Dust Collector	1996	Variable	
A-7E	A-7E	Cyclone Dust Collector for Grit Blaster	1996	99.9% (PM)	
D-1E	D-1E	Fabric filter for paint booth	1996	90-95% (PM)	
D-1E	D-1E	Fabric filter for paint booth	1996	90-95% (PM)	
D-8E	D-8E	Dust collector for mixing machine and roll mill	1996	99.9% (PM)	
D-9E	D-9E	Fabric filter for primer station	2000	90-95% (PM)	
D-10E	D-10E	Dust collector from nylon band slotter	2000	99.9% (PM)	
D-17E	D-17E	Fabric filter for primer booth	2003	90-95% (PM)	
A-15C	D-18E	Fabric filter for primer booth	2003	90-95% (PM)	
V-1C	V-1E	Fabric Filter	2004	90% (PM)	
V-2C	V-2E	Fabric Filter	2004	90% (PM)	
V-3C	V-4E	Fabric Filter	2004	90% (PM)	
V-4C	V-4E	Fabric Filter	2004	90% (PM)	
V-5C	V-5E	Fabric Filter	2004	90% (PM)	

Facility Information and Description			
List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.			
Process	Products	NAICS	SIC
Rocket Motor Manufacture	Rocket motors, metal rocket cases, composite rocket cases	336415	3764
F-22 Composites Manufacturing	Pivot shafts and obturator plates for F-22	336413	3728
Electronic Fuzing and Ammunition	Medium caliber ammunition (not loaded), proximity switches, and multiple fuze products for DoD	332995	3489
NOTE: Part 2 of this permit covers only the the case manufacture in composites and metal fabrication areas.			
<p>Provide a general description of operations.</p> <p>Naval Industrial Reserve Ordnance Plant (NIROP)/Allegany Ballistics Laboratory (ABL) is a facility which is operated by Alliant Techsystems Operations LLC (Northrup Grumman) (headquarters in Falls Church, VA) under the Northrup Grumman Innovation Systems (NGIS) Missile Products Group. The majority of the facility is owned by the U.S. Navy and is operated by NGIS under a facilities use contract (~1530 acres designated as Plant 1). 57 acres is owned and operated by NGIS and is designated as Plant 2. Approximately 500 acres of Plant 1 are developed. In 2017, development began on an approximately 41 acre area designated as Plant 3 which will be utilized for production of rocket motors. The remaining acreage is undeveloped at this time. All property is contiguous with internal roads to reach each separate area.</p> <p>Operations at the plant include:</p> <ul style="list-style-type: none"> • metal fabrication of rocket motor and warhead cases; • metal fabrication of tank ammunition training rounds; • manufacture of composite material rocket motor and warhead cases; • manufacture of composite material aircraft components; • preparation of cases for addition of explosives; • mixing, casting, curing, and associated operations with propellants and explosives; • static firing of rocket motors; • open burning of waste propellants and explosives; • development and production of laser firing devices; • analytical and research & development laboratories; • explosive loading and packing operations for tank ammunition; • x-ray testing; and • maintenance and utility operations. <p>In addition, to these operations, the site is also home to the Robert C. Byrd Institute for Machining.</p>			

Active Permits/Consent Orders (Part 2 of 3 only)		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit (<i>if any</i>)
R13-1797A	01/30/2002	
R13-2037A	07/26/2001	
R13-2579A	10/17/2005	
R13-2680	01/04/2007	_____
R13-2754	08/12/2008	_____

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2017 Actual Emissions
Carbon Monoxide (CO)	59.97	20.06
Nitrogen Oxides (NO _x)	41.31	22.10
Particulate Matter (PM _{2.5}) ¹	4.88	1.08
Particulate Matter uncontrolled (PM ₁₀)	12.34	1.97
Total Particulate Matter controlled or uncontrolled? (TSP)	23.22	1.998
Sulfur Dioxide (SO ₂)	33.67	0.16
Volatile Organic Compounds (VOC)	144.75	23.55

PM_{2.5} and PM₁₀ are components of TSP.

²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Hazardous Air Pollutants	Potential Emissions	2017 Actual Emissions
Acetonitrile	0.27	0.024
Antimony compounds*	2.0E-04	7.0E-06
Benzene	0.37	0.032
Cadmium compounds*	6.0E-04	4.5E-05
Chloroform	0.096	0.008
Chromium*	8.0E-04	5.7E-05
Chromium compounds (not identified)*	0.136	0.012
Cobalt*	1.7E-04	4.0E-06
Diethyl phthalate	0.85	0.07
Ethyl benzene	0.62	0.05
Formaldehyde	0.029	0.0025
Glycol ether compounds	0.06	0.005
Hexane	0.80	0.07

Hydrochloric Acid	4.40	0.993
Lead *	1.322	0.239
Lead compounds*	5.0E-05	4.0E-06
Mercury*	2.0E-04	1.95E-08
Methanol	1.81	0.16
Methyl isobutyl ketone	3.73	0.32
Methylene chloride	1.995	1.116
Nickel*	2.0E-04	1.95E-08
Phenol	0.16	0.01
Strontium chromate*	0.0012	0.0001
Toluene	30.89	2.67
Trichloroethylene	0.125	0
Xylene	5.29	0.46
Zinc chromate*	1.2E-05	1.0E-06
Other (not specified)	0.1	0.016
Total	53.06	6.26

* Component of TSP emissions in Plantwide Emission Summary table above

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

Changes to PTE table

Criteria pollutants updated to reflect removal of coal and #6 oil boilers from service and addition of permit limits from R13-3334 and R13-3408.

Updated Actuals from 2012 to 2017 actuals (based on AEI and CES)

Hydrochloric acid updated to reflect removal of coal and #6 oil boilers from service.

Removed Hydrofluoric acid to reflect removal of coal and #6 oil boilers from service.

Insignificant Activities (Check all that apply)

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | 20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.

Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:

_____ |
| <input checked="" type="checkbox"/> | 21. Environmental chambers not using hazardous air pollutant (HAP) gases. |
| <input checked="" type="checkbox"/> | 22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption. |
| <input type="checkbox"/> | 23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment. |
| <input checked="" type="checkbox"/> | 24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis. |
| <input checked="" type="checkbox"/> | 25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP. |
| <input checked="" type="checkbox"/> | 26. Fire suppression systems. |
| <input checked="" type="checkbox"/> | 27. Firefighting equipment and the equipment used to train firefighters. |
| <input type="checkbox"/> | 28. Flares used solely to indicate danger to the public. |
| <input checked="" type="checkbox"/> | 29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted. |
| <input checked="" type="checkbox"/> | 30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation. |
| <input checked="" type="checkbox"/> | 31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic. |
| <input checked="" type="checkbox"/> | 32. Humidity chambers. |
| <input checked="" type="checkbox"/> | 33. Hydraulic and hydrostatic testing equipment. |
| <input type="checkbox"/> | 34. Indoor or outdoor kerosene heaters. |
| <input checked="" type="checkbox"/> | 35. Internal combustion engines used for landscaping purposes. |
| <input checked="" type="checkbox"/> | 36. Laser trimmers using dust collection to prevent fugitive emissions. |
| <input checked="" type="checkbox"/> | 37. Laundry activities, except for dry-cleaning and steam boilers. |
| <input checked="" type="checkbox"/> | 38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities. |
| <input checked="" type="checkbox"/> | 39. Oxygen scavenging (de-aeration) of water. |

Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input checked="" type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input checked="" type="checkbox"/>	51. Steam cleaning operations.
<input checked="" type="checkbox"/>	52. Steam leaks.
<input checked="" type="checkbox"/>	53. Steam sterilizers.
<input checked="" type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input checked="" type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.