

May 2015
Project No. 15-199

**REGULATION 13 PERMIT CLASS II
ADMINISTRATIVE UPDATE
APPLICATION R13-1364F**

**REPLACEMENT OF SPRAY PAINT
BOOTHS AND SPRAY GUN CLEANING
STATION**

**AURORA FLIGHT SCIENCES OF WV, INC
Bridgeport, West Virginia
Facility ID 033-00034**

PREPARED BY:

**MSES Consultants, Inc.
P.O. Drawer 190
Clarksburg, West Virginia 26302-019
(304) 624-9700**

*R13-1364G
033-00034
Lee Martin
Aurora Flight
Sciences of WV Inc
Bridgeport*

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WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
 601 57th Street, SE
 Charleston, WV 25304
 (304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
 AND
 TITLE V PERMIT REVISION
 (OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO NSR (45CSR13) (IF KNOWN):

- CONSTRUCTION MODIFICATION RELOCATION
 CLASS I ADMINISTRATIVE UPDATE TEMPORARY
 CLASS II ADMINISTRATIVE UPDATE AFTER-THE-FACT

PLEASE CHECK TYPE OF 45CSR30 (TITLE V) REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT MINOR MODIFICATION
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS ATTACHMENT S TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office):
 Aurora Flight Sciences of West Virginia, Inc.

2. Federal Employer ID No. (FEIN):
 550733075

3. Name of facility (if different from above):
 Same

4. The applicant is the:
 OWNER OPERATOR BOTH

5A. Applicant's mailing address:
 3000 East Benedum Industrial Drive
 Bridgeport, WV 26330

5B. Facility's present physical address:
 3000 East Benedum Industrial Drive
 Bridgeport, WV 26330

6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? YES NO
 ⇒ If YES, provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A**.
 ⇒ If NO, provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A**.

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site*? YES NO

⇒ If YES, please explain: Applicant owns the facility

⇒ If NO, you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated or temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): Replacement of aircraft parts spray paint booths and gun cleaning station and conversion of existing paint booth to a sanding booth

10. North American Industry Classification System (NAICS) code for the facility:
 336413

11A. DAQ Plant ID No. (for existing facilities only):
 033-00034

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
 R13-1364F

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.



12A.

- ⇒ For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- ⇒ For **Construction** or **Relocation permits**, please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

I-79 to Exit 124. East on Jerry Dove Drive (Route 279) to US Route 50. Turn right onto US Route 50. Turn right onto Benedum Industrial Drive. Follow to facility on the right.

12.B. New site address (if applicable):

Not applicable

12C. Nearest city or town:

Bridgeport

12D. County:

Harrison

12.E. UTM Northing (KM): 4351.0

12F. UTM Easting (KM): 567.069

12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:

Replace existing spray paint booths and gun cleaning area; convert existing paint booth to sanding booth.

14A. Provide the date of anticipated installation or change: 08/03/2015

⇒ If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: / /

14B. Date of anticipated Start-Up if a permit is granted:

08/31/2015

14C. Provide a **Schedule** of the planned **Installation of/Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:

Hours Per Day 24 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? **YES** **NO**

17. **Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18. **Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (*if known*). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (*if known*). Provide this information as **Attachment D**.

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to **Plot Plan Guidance**).

⇒ Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F**.

23. Provide a **Process Description** as **Attachment G**.

⇒ Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H**.

⇒ For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

- | | | |
|--|--|--|
| <input type="checkbox"/> Bulk Liquid Transfer Operations | <input type="checkbox"/> Haul Road Emissions | <input type="checkbox"/> Quarry |
| <input type="checkbox"/> Chemical Processes | <input type="checkbox"/> Hot Mix Asphalt Plant | <input type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities |
| <input type="checkbox"/> Concrete Batch Plant | <input type="checkbox"/> Incinerator | <input type="checkbox"/> Storage Tanks |
| <input type="checkbox"/> Grey Iron and Steel Foundry | <input type="checkbox"/> Indirect Heat Exchanger | |
- General Emission Unit, specify: spray paint booths, gun cleaning station, sanding booth

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

- | | | |
|---|---|--|
| <input type="checkbox"/> Absorption Systems | <input type="checkbox"/> Baghouse | <input type="checkbox"/> Flare |
| <input type="checkbox"/> Adsorption Systems | <input type="checkbox"/> Condenser | <input type="checkbox"/> Mechanical Collector |
| <input type="checkbox"/> Afterburner | <input type="checkbox"/> Electrostatic Precipitator | <input type="checkbox"/> Wet Collecting System |
- Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES NO

➤ If **YES**, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "**Precautionary Notice – Claims of Confidentiality**" guidance found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

- | | |
|--|---|
| <input type="checkbox"/> Authority of Corporation or Other Business Entity | <input type="checkbox"/> Authority of Partnership |
| <input type="checkbox"/> Authority of Governmental Agency | <input type="checkbox"/> Authority of Limited Partnership |

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

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.

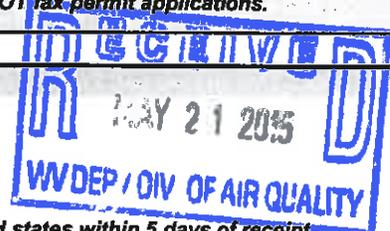
SIGNATURE Eric Thompson DATE: 5.21.15
(Please use blue ink) (Please use blue ink)

35B. Printed name of signee: Eric Thompson		35C. Title: General Manager
35D. E-mail: Thompson.Eric@aurora.aero	36E. Phone: 304-848-5953	36F. FAX: 304-842-8116
36A. Printed name of contact person (if different from above): Dennis Klingensmith		36B. Title: EH&S Manager
36C. E-mail: DKlingensmith@aurora.aero	36D. Phone: 304-848-5564	36E. FAX: 304-842-8116

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Attachment A: Business Certificate | <input type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet |
| <input checked="" type="checkbox"/> Attachment B: Map(s) | <input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s) |
| <input type="checkbox"/> Attachment C: Installation and Start Up Schedule | <input type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s) |
| <input type="checkbox"/> Attachment D: Regulatory Discussion | <input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations |
| <input type="checkbox"/> Attachment E: Plot Plan | <input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans |
| <input type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s) | <input checked="" type="checkbox"/> Attachment P: Public Notice |
| <input checked="" type="checkbox"/> Attachment G: Process Description | <input type="checkbox"/> Attachment Q: Business Confidential Claims |
| <input type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS) | <input type="checkbox"/> Attachment R: Authority Forms |
| <input checked="" type="checkbox"/> Attachment I: Emission Units Table | <input type="checkbox"/> Attachment S: Title V Permit Revision Information |
| <input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet | <input checked="" type="checkbox"/> Application Fee |

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.



FOR AGENCY USE ONLY - IF THIS IS A TITLE V SOURCE:

- Forward 1 copy of the application to the Title V Permitting Group and:
- For Title V Administrative Amendments:
 - NSR permit writer should notify Title V permit writer of draft permit,
- For Title V Minor Modifications:
 - Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,
 - NSR permit writer should notify Title V permit writer of draft permit.
- For Title V Significant Modifications processed in parallel with NSR Permit revision:
 - NSR permit writer should notify a Title V permit writer of draft permit,
 - Public notice should reference both 45CSR13 and Title V permits,
 - EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

ATTACHMENT A
Business Certificate



CERTIFICATE

I, Ken Heckler, Secretary of State of the State of West Virginia, hereby certify that

AURORA FLIGHT SCIENCES OF WEST VIRGINIA, INC.

a corporation formed under the laws of **Delaware** has applied for a Certificate of Authority to transact business in West Virginia as required by the provisions of Chapter 3, Article 1, Sections 53 and 54 of the West Virginia Code. I further certify that the application conforms to law and is filed in my office.

THEREFORE, I issue this

CERTIFICATE OF AUTHORITY

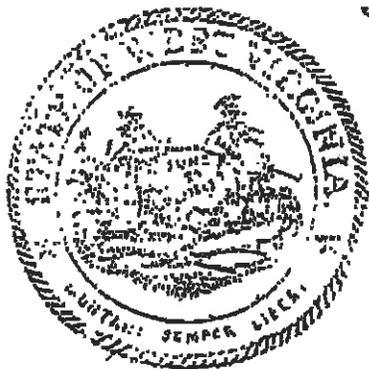
to the corporation authorizing it to transact business in West Virginia under the name of

AURORA FLIGHT SCIENCES OF WEST VIRGINIA, INC.

and I attach to this certificate a duplicate original of the application.

Given under my hand and the Great Seal of the State of West Virginia, on this

Thirteenth day of April, 1994

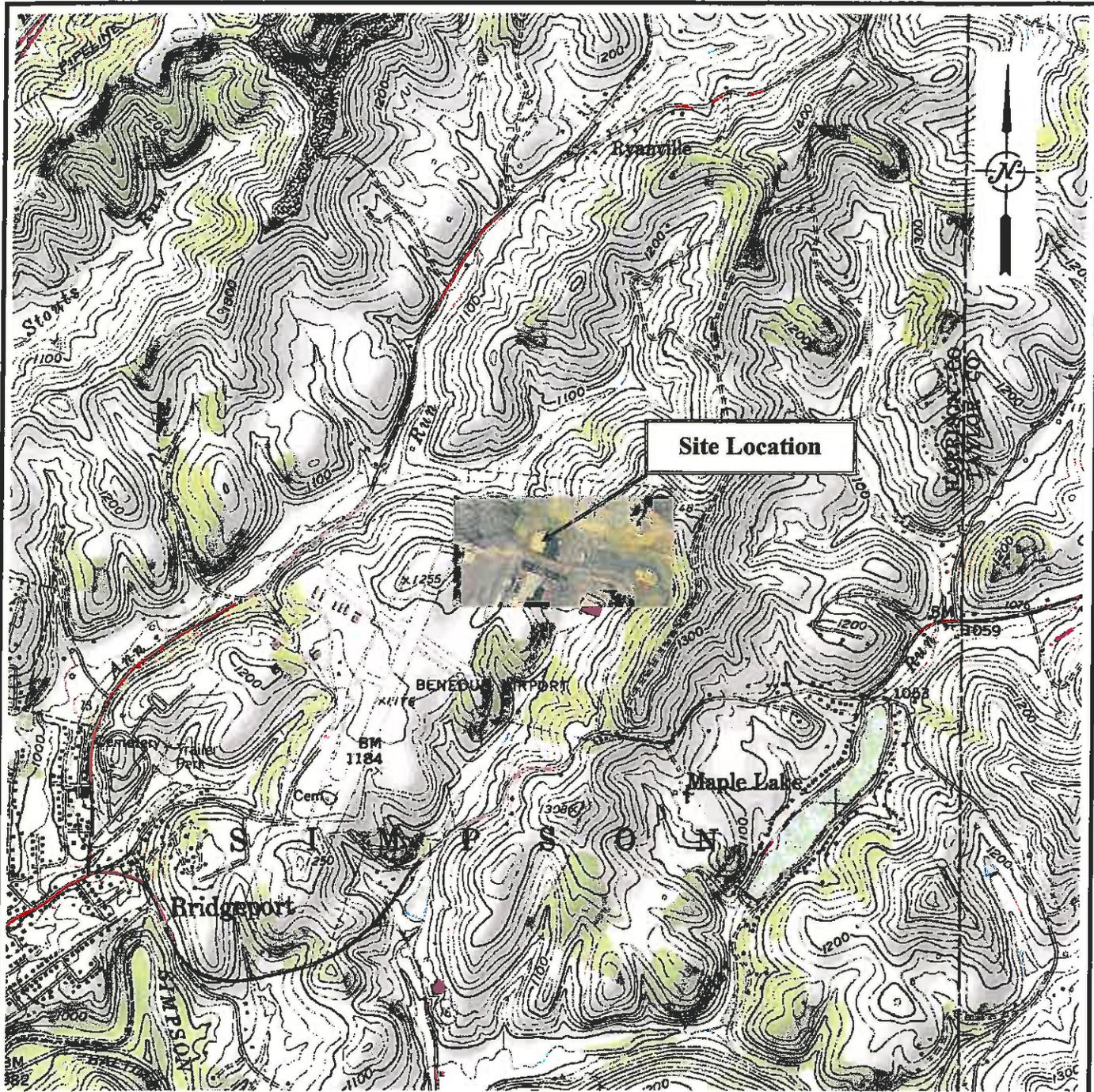


Ken Heckler

Secretary of State

ATTACHMENT B

Map(s)



Reference:
 3-D TopoQuads © DeLorme,
 Yarmouth, Me 04096

Source Data:
 7.5 Minute USGS
 Topographic Quadrangle

Rosemont, WV

Vicinity Map

Scale 1" = 2000'

MSES Consultants, Inc.
 Clarksburg, West Virginia

AURORA FLIGHT SCIENCES CORP.

Bridgeport, WV

Project No. 15-199

Attachment B

ATTACHMENT G
Process Description

ATTACHMENT G

Aurora proposes to replace the existing large paint and strip booth and small paint booth (EPB1PB1) with two new downdraft spray paint booths (SB1 and SB2). The third permitted booth (EPB2PB2) was never installed. Aurora proposes to install a third booth (SB3) in the future. A new spray paint gun cleaning station (GC1) will replace the existing station (EP1PGC1) and the second gun cleaning station (EPB2PB2) that was never installed. Emissions of VOCs and HAPs will not increase as a result of replacing the existing permitted equipment with new, more efficient equipment. A slight increase in CO and NOx is anticipated with three (3) natural gas fired heating units. The net potential increase in CO emissions is 0.12 pounds per hour and 0.55 tons per year. The net potential increase in NOx emissions is 0.15 pounds per hour and 0.67 tons per year.

Aurora Flight Sciences is a manufacturer of various aircraft parts. Aurora's primary customers are Northrop Grumman and Sikorski. However, other customers can be companies such as Boeing, Bell, U.S. Air Force, U.S. Navy, NASA and other aircraft manufacturers. As such, Aurora manufactures a highly diversified product line on an ever changing basis. The surface coatings which are applied to these parts also vary greatly.

Aurora currently has approximately 160 various bases, activators and thinners that are or could potentially be used to coat the various parts that Aurora manufactures. These bases, activators and thinners are mixed and applied on a per ounce basis, not a per gallon basis, in accordance with very stringent customer specifications. Because of the ever changing product line and variety surface coatings for these lines it becomes very difficult to predict the exact amounts and types of surface coatings which will be applied to the ever changing product lines as specified by Aurora's customers.

The approximate 160 bases, accelerators and thinners that can be or have been applied also vary greatly. The product weights of these items vary from 6.71 pounds per gallon to 14.3 pounds per gallon. The VOC content of these bases, accelerators and thinners also vary greatly from 1.7 pounds per gallon to 8.33 pounds per gallon. The Hazardous Air Pollutants (HAP) contained in these bases, accelerators and thinners are highly diversified. Some of them contain no HAPs while others contain up to five HAPs. The percentage of HAPs in these items ranges from zero (0) percent to approximately 50 percent (thinners/activators). Tracking the paint usage and potential VOC and the aggregate HAP emissions is a time consuming process.

Aurora does not anticipate the need to increase the hourly or annual allowable limits for either VOCs or HAPs. The hourly and annual limits contained in the existing air permit will provide Aurora with operational flexibility and the ability to grow and expand its West Virginia business.

Per the requirements of our existing air permit, Aurora has developed and has been utilizing two *Excel* spread sheets to track the various surface coatings that are applied

ATTACHMENT H
Material Safety Data Sheets (MSDS)

ATTACHMENT I
Emission Units Table

ATTACHMENT J

**Emission Points Data Summary
Sheet**

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data

Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ³)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
EP001	Upward Vertical Stack	SB1	Spray Paint Booth 1					CO	0.10	0.44			Vapor, Solid	EE, MB	
								NOx	0.12	0.53					
								PM	0.0091	0.04					
								SO ₂	0.0007	0.003					
								VOC	6.75	**					
EP002	Upward Vertical Stack	SB2	Spray Paint Booth 2					CO	0.10	0.44			Vapor, Solid	EE, MB	
								NOx	0.12	0.53					
								PM	0.0091	0.04					
								SO ₂	0.0007	0.003					
								VOC	6.75	**					
EP003	Upward Vertical Stack	SB3	Spray Paint Booth 3					CO	0.10	0.44			Vapor, Solid	EE, MB	
								NOx	0.12	0.53					
								PM	0.0091	0.04					
								SO ₂	0.0007	0.003					
								VOC	6.75	**					
EP004	Upward Vertical Stack	GC1	Gun Cleaning Station						6.75	** see attach ment N			Vapor	MB	
EP005	Upward Vertical Stack	SaB1	Sanding Booth					PM	5.01	21.93	0.10	0.31	Solid	EE, MB	
								Chromium	1.55	6.80	0.031	0.136			

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

- Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.
- Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (i.e., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).
- List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.
- Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).
- Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

- 6 Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).
- 7 Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2 , use units of ppmv (See 45CSR10).

Attachment J

EMISSION POINTS DATA SUMMARY SHEET

Table 2: Release Parameter Data

Emission Point ID No. (Must match Emissions Units Table)	Inner Diameter (ft.)	Temp. (°F)	Exit Gas		Emission Point Elevation (ft)		UTM Coordinates (km)	
			Volumetric Flow (acfm) at operating conditions	Velocity (fps)	Ground Level (Height above mean sea level)	Stack Height ² (Release height of emissions above ground level)	Northing	Easting
EP001	2.83	90			1208'	35'	4350.331	567.069
EP002	2.83	90			1208'	35'	4350.331	567.069
EP003	2.83	90			1208'	35'	4350.331	567.069
EP004	0.83	78			1208'	35'	4350.331	567.069
EP005	2.83	78			1208'	35'	4350.331	567.069

¹ Give at operating conditions. Include inerts.
² Release height of emissions above ground level.

ATTACHMENT L
Emissions Unit Data Sheet(s)

**Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL**

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): SB1

<p>1. Name or type and model of proposed affected source:</p> <p>One Global Finishing Solutions (GFS) Performer XD Spacesaver Downdraft Spray Booth</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>Various aircraft parts and coatings</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>Painted aircraft parts</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>NA</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
1433 cubic feet per hour Natural gas			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
NA			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
@	°F and	psia.	
(d) Percent excess air:			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
1.433 million Btu per hour Direct-Fire Aluminum Burner			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
NA			
(g) Proposed maximum design heat input:		1.433	× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:			
@	°F and		psia
a. NO _x	0.14	lb/hr	grains/ACF
b. SO ₂	0.00086	lb/hr	grains/ACF
c. CO	0.12	lb/hr	grains/ACF
d. PM ₁₀	0.011	lb/hr	grains/ACF
e. Hydrocarbons		lb/hr	grains/ACF
f. VOCs	6.75	lb/hr	grains/ACF
g. Pb		lb/hr	grains/ACF
h. Specify other(s)		lb/hr	grains/ACF
		lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
 Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): SB2

<p>1. Name or type and model of proposed affected source:</p> <p>One Global Finishing Solutions (GFS) Performer XD Spacesaver Downdraft Spray Booth</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>Various aircraft parts and coatings</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>Painted aircraft parts</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>NA</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
1433 cubic feet per hour Natural gas			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
NA			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
@	°F and	psia.	
(d) Percent excess air:			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
1.433 million Btu per hour Direct-Fire Aluminum Burner			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
NA			
(g) Proposed maximum design heat input:		1,433	× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	°F and	psia
a. NO _x	0.14 lb/hr	grains/ACF
b. SO ₂	0.00086 lb/hr	grains/ACF
c. CO	0.12 lb/hr	grains/ACF
d. PM ₁₀	0.011 lb/hr	grains/ACF
e. Hydrocarbons	lb/hr	grains/ACF
f. VOCs	6.75 lb/hr	grains/ACF
g. Pb	lb/hr	grains/ACF
h. Specify other(s)	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing
 Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): SB3

<p>1. Name or type and model of proposed affected source:</p> <p>One Global Finishing Solutions (GFS) Performer XD Spacesaver Downdraft Spray Booth</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>Various aircraft parts and coatings</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>Painted aircraft parts</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>NA</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
1433 cubic feet per hour Natural gas			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
NA			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
@	°F and	psia.	
(d) Percent excess air:			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
1.433 million Btu per hour Direct-Fire Aluminum Burner			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
NA			
(g) Proposed maximum design heat input:		1.433	× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	°F and	psia
a. NO _x	0.14 lb/hr	grains/ACF
b. SO ₂	0.00086 lb/hr	grains/ACF
c. CO	0.12 lb/hr	grains/ACF
d. PM ₁₀	0.011 lb/hr	grains/ACF
e. Hydrocarbons	lb/hr	grains/ACF
f. VOCs	6.75 lb/hr	grains/ACF
g. Pb	lb/hr	grains/ACF
h. Specify other(s)	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

**Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL**

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): GC1

<p>1. Name or type and model of proposed affected source:</p> <p>Global Finishing Solutions (GFS) 9' x 9' x 15' Gun Cleaning Station</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>Spray painting guns with residual paint/coatings</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>Clean spray paint guns</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>NA</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
None			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
NA			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
@	°F and	psia.	
(d) Percent excess air:			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
NA			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
NA			
(g) Proposed maximum design heat input:		NA	× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:

@	°F and	psia
a. NO _x	lb/hr	grains/ACF
b. SO ₂	lb/hr	grains/ACF
c. CO	lb/hr	grains/ACF
d. PM ₁₀	lb/hr	grains/ACF
e. Hydrocarbons	lb/hr	grains/ACF
f. VOCs	6.75 lb/hr	grains/ACF
g. Pb	lb/hr	grains/ACF
h. Specify other(s)	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF
	lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

Attachment L
EMISSIONS UNIT DATA SHEET
GENERAL

To be used for affected sources other than asphalt plants, foundries, incinerators, indirect heat exchangers, and quarries.

Identification Number (as assigned on *Equipment List Form*): SaB1

<p>1. Name or type and model of proposed affected source:</p> <p>Sanding Booth</p>
<p>2. On a separate sheet(s), furnish a sketch(es) of this affected source. If a modification is to be made to this source, clearly indicated the change(s). Provide a narrative description of all features of the affected source which may affect the production of air pollutants.</p>
<p>3. Name(s) and maximum amount of proposed process material(s) charged per hour:</p> <p>Various aircraft parts and fillers</p>
<p>4. Name(s) and maximum amount of proposed material(s) produced per hour:</p> <p>Sanded aircraft parts</p>
<p>5. Give chemical reactions, if applicable, that will be involved in the generation of air pollutants:</p> <p>NA</p>

* The identification number which appears here must correspond to the air pollution control device identification number appearing on the *List Form*.

6. Combustion Data (if applicable):			
(a) Type and amount in appropriate units of fuel(s) to be burned:			
None			
(b) Chemical analysis of proposed fuel(s), excluding coal, including maximum percent sulfur and ash:			
NA			
(c) Theoretical combustion air requirement (ACF/unit of fuel):			
@		°F and	psia.
(d) Percent excess air:			
(e) Type and BTU/hr of burners and all other firing equipment planned to be used:			
None			
(f) If coal is proposed as a source of fuel, identify supplier and seams and give sizing of the coal as it will be fired:			
NA			
(g) Proposed maximum design heat input:			× 10 ⁶ BTU/hr.
7. Projected operating schedule:			
Hours/Day	24	Days/Week	7
		Weeks/Year	52

8. Projected amount of pollutants that would be emitted from this affected source if no control devices were used:			
@	78	°F and	psia
a. NO _x		lb/hr	grains/ACF
b. SO ₂		lb/hr	grains/ACF
c. CO		lb/hr	grains/ACF
d. PM ₁₀	5.01	lb/hr	grains/ACF
e. Hydrocarbons		lb/hr	grains/ACF
f. VOCs		lb/hr	grains/ACF
g. Pb		lb/hr	grains/ACF
h. Specify other(s)			
Chromium Compounds	1.55	lb/hr	grains/ACF
		lb/hr	grains/ACF
		lb/hr	grains/ACF
		lb/hr	grains/ACF

NOTE: (1) An Air Pollution Control Device Sheet must be completed for any air pollution device(s) used to control emissions from this affected source.

(2) Complete the Emission Points Data Sheet.

9. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING

RECORDKEEPING

REPORTING

TESTING

MONITORING. PLEASE LIST AND DESCRIBE THE PROCESS PARAMETERS AND RANGES THAT ARE PROPOSED TO BE MONITORED IN ORDER TO DEMONSTRATE COMPLIANCE WITH THE OPERATION OF THIS PROCESS EQUIPMENT OPERATION/AIR POLLUTION CONTROL DEVICE.

RECORDKEEPING. PLEASE DESCRIBE THE PROPOSED RECORDKEEPING THAT WILL ACCOMPANY THE MONITORING.

REPORTING. PLEASE DESCRIBE THE PROPOSED FREQUENCY OF REPORTING OF THE RECORDKEEPING.

TESTING. PLEASE DESCRIBE ANY PROPOSED EMISSIONS TESTING FOR THIS PROCESS EQUIPMENT/AIR POLLUTION CONTROL DEVICE.

10. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty

ATTACHMENT N

Supporting Emissions Calculations

ATTACHMENT N

AURORA FLIGHT SCIENCES OF WEST VIRGINIA

Air Emissions from Each Natural Gas Fired Heater Three - 1,433,000 Btu/hr Design Heat Input				
Pollutant	AP-42 Emission Factor	Maximum Estimated Emissions		
	(lb/10 ⁶ ft ³)	(lb/hr)	(lb/day)	(tons/yr)
CO	84	0.12	2.89	0.53
Nox	100	0.14	3.44	0.63
SO ₂	0.6	0.00086	0.02	0.0038
PM	7.6	0.011	0.26	0.048
VOC	5.5	0.0079	0.19	0.035
CO ₂	120000	172	4127	753
N ₂ O	2.2	0.0032	0.076	0.014
Methane	2.3	0.0033	0.079	0.014

Notes:

Emission factors from AP-42 Chapter 1, Section 4 (7/98)

1433 ft³/hr of natural gas burned based on 1,000 Btu/ft³

Example: 84 lb CO/1000000 ft³ x 1433 ft³/hr = 0.12 lb/hr CO
 0.12 lb/hr x 8760 hr/year x ton/2000 lb = 0.53 ton/year CO

Current Permitted Emissions for EPB2PB2

	lb/hr	tpy
CO	0.18	0.77
NOx	0.21	0.92

Net Emission Change

		tpy
CO	0.53 x 3 - 0.77 =	0.81
NOx	0.63 x 3 - 0.92 =	0.96

ATTACHMENT N

AURORA FLIGHT SCIENCES OF WEST VIRGINIA

Existing Permit Limits

Emission Point ID	Source Description	VOCs		HAPs	
		Hourly (pounds/hour)	Annual (tons/year)	Hourly (pounds/hour)	Annual (tons/year)
EPB1PB1	Large paint and strip booth Small paint booth	6.75	19.71	5.37	7.84
EPB1PGC1	Gun cleaning				
EPB2PB2	New paint booth & gun cleaning	6.75			

Proposed Limits for New Paint Booths and Equipment

New Emission Point ID	Source Description	VOCs		HAPs	
		Hourly (pounds/hour)	Annual (tons/year)	Hourly (pounds/hour)	Annual (tons/year)
EP001	Downdraft Booth #1	6.75	19.71	5.37	7.84
EP002	Downdraft Booth #2	6.75			
EP003	Downdraft Booth #3	6.75			
EP004	Gun cleaning	6.75			

Known HAPs	
CAS No.	Name
	Chromium Compounds
71-43-2	Benzene
101-68-8	Methylene Diphenyl Diisocyanate
108-10-1	Methyl Isobutyl Ketone
108-88-3	Toluene
1330-20-7	Xylenes
100-41-4	Ethylbenzene
50-00-0	Formaldehyde
100-42-5	Sytrene
68-12-2	Dimethyl Formamide
822-06-0	Hexamethylene-1.6-diisocyanate
98-52-8	Cumene
67-56-1	Methanol
131-11-3	Dimethyl Phthalate
584-84-9	Toluene-2,4-diisocyanate
112-07-2	Ethylene Glycol Monobutyl Ether Acetate
84-74-2	Dibutylphthalate
91-20-3	Naphthalene
112-07-2	Glycol ethers 2-Butoxyethyl Acetate

ATTACHMENT N

AURORA FLIGHT SCIENCES OF WV, INC.

Sanding Booth Operations

SaB1 (EP005)

Specific Gravity = 1.5
 Density = 12.51 lb/gal
 Max Hourly Usage = 2 gallons
 Annual Usage = 17520 gallons
 Annual Pounds Used 219254 lbs (gallons used x density)

Assume 20% is removed in sanding process.

219,254 lbs x 20% = 43851 lbs per year
 21.93 tons per year potential emissions

Maximum hours of operation per year = 8760 hours/year

43,851 lbs/year x year / 8,760 hours/year = 5.01 lb/hr

Control Efficiencies of Filters

Filter Control Efficiency = 98 % per manufacturer's literature

Controlled Emissions

5.01 lb/hr x (1 - 98/100) = 0.10 lb/hr PM

21.93 tpy x (1 - 98/100) = 0.44 tpy PM

Worst case HAP emissions based on primer which contains a maximum of 31% chromium compounds

0.10 lb/hr PM x 31% chromium = 0.031 lb/hr chromium
 0.44 tpy PM x 31% chromium = 0.136 tpy chromium

ATTACHMENT N

AURORA FLIGHT SCIENCES OF WV, INC.

Regulation 7 Compliance Calculations

Process Weight Rate = 25 lbs coating + 285 lb part = 310 lbs

Operations are a Type 'a' process. linear interpolation for x =

From Table 45-7A

Process Weight <u>lbs/hr</u>	Emission Limit <u>lb/hr PM</u>				
0	0	<u>2500 - 0</u>	=	<u>3 - 0</u>	
310	x	2500 - 310		3 - x	
2500	3	<u>2500</u>	=	<u>3</u>	
		2190		3 - x	
		1.14	=	<u>3</u>	
				3 - x	
		1.14 x (3 - x)	=	3	
		3.42 - 1.14x	=	3	
		-1.14x	=	3 - 3.42	
		-1.14x	=	-0.42	
		x	=	0.37	lb/hr PM allowed

ATTACHMENT P

Public Notice

