

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1876-AOP-R11 AFIN: 60-00617

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

Dassault Falcon Jet Corp.
3801 East 10th Street
Little Rock, Arkansas 72202

3. PERMIT WRITER:

John Mazurkiewicz

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Aircraft Manufacturing
NAICS Code: 336411

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
10/1/2018 4/18/2019	Renewal/ Minor Modification	Remove the Paint Shop – Prep Bay #1 (SN-30 through SN-32); the Auto Finish Cabinet Shop (SN-51 through SN-58), and the Service Center – Headliner Glue Area (SN-75). Add the Mobile Paint Booth (SN-102) as a permitted source.

6. REVIEWER'S NOTES:

The Emission Summary and fee calculation spreadsheet have been corrected to indicate 165.0 tpy VOC.

The Process Description, regulatory citations, General Provisions, and Insignificant Activities have been updated.

Chromium compounds are emitted from Natural Gas Combustion Sources (SN-78), the Small Parts Paint Shop – Alodine Process Tank (SN-101), and the Service Center – Mobile Paint Booth (SN-102). Emissions from the mobile paint booth include chromium (VI), and are subject to regulation by NESHAP HHHHHH. Chromium (VI) limits have been included in the permit for this source.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

There are no active or pending air enforcement actions or issues at this time. The last inspection was conducted on March 1, 2018. No areas of concern or compliance issues were noted. A review of ECHO revealed no CAA violations in the last twelve quarters.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? No
 If yes, were GHG emission increases significant? N/A

b) Is the facility categorized as a major source for PSD? No

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD. N/A

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-80	PM ₁₀ , VOC, CO, NO _x , HAPs	NSPS IIII, NESHAP ZZZZ
SN-81	HAPs	NESHAP ZZZZ
SN-82	HAPs	NESHAP CCCCCC
Facility	HAPs	NESHAP HHHHHH
Facility	HAPs	NESHAP WWWWWW

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? No

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Regulation 18 requirement.)

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the ADEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Acrolein	2.29E-01	2.52E-02	3.39E-04	Yes
Acetone	1.19E03	1.31E02	4.95E01	Yes
Arsenic	1.00E-02	1.10E-03	1.50E-05	Yes
Beryllium	5.00E-05	5.50E-06	9.00E-07	Yes
Cadmium	1.00E-02	1.10E-03	8.25E-05	Yes
Chromium Compounds	5.00E-01 ¹ 5.00E-02 ² 1.00E-02 ³	5.5E-02 5.5E-03 1.1E-03	1.05E-04 6.00E-03 1.50E-04	No
Cobalt	2.00E-02	2.20E-03	6.30E-06	Yes
Hexamethylene Diisocyanate	3.44E-02	3.78E-03	1.20E-02	No

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Manganese	2.00E-01	2.20E-02	2.85E-05	Yes
Mercury	2.50E-02	2.75E-03	1.95E-05	Yes
POM	2.00E-01	2.20E-02	6.62E-06	Yes
Selenium	2.00E-01	2.20E-02	1.80E-06	Yes
Toluene Diisocyanate	3.56E-02	3.90E-03	3.24E-03	Yes

¹ Metal and Cr III compounds

² Water-soluble Cr VI compounds

³ Insoluble Cr VI compounds

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Chromium Compounds	5.00E-01*	9.77E-02	Yes
Hexamethylene Diisocyanate	3.44E-01	2.28E-01	Yes

*Water-soluble Cr VI compounds

c) H₂S Modeling: N/A

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Mass Balance	VOC 5.1 lb/hr			
08A	Mass Balance	VOC 19.7 lb/hr			
08B					
08C					
08D					
08E					

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
08F					
09	Mass Balance	VOC 10.2 lb/hr			
10	Mass Balance	VOC 12.8 lb/hr			
12	Mass Balance	VOC 14.4 lb/hr			
17	Mass Balance	VOC 2.2 lb/hr			
18	Mass Balance	VOC 2.2 lb/hr			
19	Mass Balance	VOC 2.2 lb/hr			
25	Mass Balance	VOC 59.3 lb/hr			
26A	Mass Balance	VOC			
26B		5.0 lb/hr			
27	Mass Balance	VOC 1.7 lb/hr			
33	TANKS 4.0.9d	VOC 0.6 lb/hr			
34	TANKS 4.0.9d	VOC 0.6 lb/hr			
35	TANKS 4.0.9d	VOC 0.3 lb/hr			
37	Mass Balance	VOC 17.9 lb/hr			
39	Mass Balance	VOC 64.0 lb/hr			
40	Mass Balance	VOC 64.0 lb/hr			
42	Mass Balance	VOC 9.9 lb/hr			
43	Mass Balance	VOC 9.9 lb/hr			
45	Mass Balance	VOC 9.9 lb/hr			
46	Mass Balance	VOC 9.9 lb/hr			
48	Mass Balance	VOC 1.8 lb/hr			
49	Mass Balance	VOC 12.3 lb/hr			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
50	Mass Balance	VOC 12.8 lb/hr			
59	Mass Balance	VOC 9.9 lb/hr			
60	Mass Balance	VOC 9.9 lb/hr			
61	Mass Balance	VOC 9.9 lb/hr			
62	Mass Balance	VOC 9.9 lb/hr			
63	Mass Balance	VOC 9.9 lb/hr			
64	Mass Balance	VOC 9.9 lb/hr			
65	Mass Balance	VOC 42.6 lb/hr			
66	Mass Balance	VOC 42.6 lb/hr			
67	Mass Balance	VOC 1.8 lb/hr			
68	Mass Balance	VOC 1.8 lb/hr			
69	Mass Balance	VOC 0.2 lb/hr			
70	Mass Balance	VOC 0.2 lb/hr			
71	Mass Balance	VOC 3.4 lb/hr			
72	Mass Balance	VOC 3.4 lb/hr			
73	Mass Balance	VOC 3.4 lb/hr			
74	Mass Balance	VOC 2.9 lb/hr			
76	Mass Balance	VOC 0.2 lb/hr			
77	Mass Balance	VOC 0.2 lb/hr			
78	AP-42 Section 1 - Tables 1.4-1 through 1.4-4	PM/PM ₁₀ 7.6 lb/MMcf SO ₂ 0.6 lb/MMcf VOC 5.5 lb/MMcf			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		CO 84 lb/MMcf NO _x 100 lb/MMcf			
79	Mass Balance	VOC 42.6 lb/hr			
80	AP-42 Section 3 - Tables 3.3-1, 3.3-2, and certification	PM/PM ₁₀ 0.3 g/kW-hr SO ₂ 0.00205 g/kW-hr VOC 0.00205 g/kW-hr CO 5.0 g/kW-hr NO _x 4.0 g/kW-hr			158 hp 500 hr/yr operation
81	AP-42 Section 3 - Table 3.3-1 and 3.3-2	PM/PM ₁₀ 0.0022 lb/hp-hr SO ₂ 0.00205 lb/hp-hr VOC 0.00247 lb/hp-hr CO 0.00668 lb/hp-hr NO _x 0.031 lb/hp-hr			Two Engines 183 hp, each 500 hr/yr operation
82	TANKS 4.0.9d	VOC 11.9 lb/hr			
83A	Mass Balance	VOC 1.4 lb/hr			
83B					
84A	Mass Balance	VOC 1.0 lb/hr			
84B					
85A	Mass Balance	VOC 12.1 lb/hr			
85B					
86A	Mass Balance	VOC 12.1 lb/hr			
86B					
87	Mass Balance	VOC 1.9 lb/hr			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
88	Mass Balance	VOC 1.9 lb/hr			
89	Mass Balance	VOC 1.9 lb/hr			
90	Mass Balance	VOC 1.9 lb/hr			
91	Mass Balance	VOC 10.3 lb/hr			
92	Mass Balance	VOC 12.3 lb/hr			
93	Mass Balance	VOC 5.7 lb/hr			
94					
95					
96A	Mass Balance	VOC 2.8 lb/hr			
96B					
96C					
96D					
96E					
97	Mass Balance	VOC 4.9 lb/hr			
98	Mass Balance	VOC 4.9 lb/hr			
99	Mass Balance	VOC 1.0 lb/hr			
100A	Mass Balance	VOC 2.0 lb/hr			
100B					
101A	AP-42 Section 12 - Table 12.20-2	PM/PM ₁₀ 4.2 gr/hr-ft ²			
101B	AP-42 Section 12 - Table 12.20-2	PM/PM ₁₀ 4.2 gr/hr-ft ²			
102	Mass Balance	VOC 0.9			

14. TESTING REQUIREMENTS:

The permit does not require stack testing.

15. MONITORING OR CEMS:

This permit does not require monitoring devices or CEMS.

16. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
facility wide	VOC content and purchases of VOC containing materials	165.0 tpy of VOC emissions	monthly	Y
facility wide	HAP content and purchases of HAP containing materials	9.6 tpy - single HAP 22.0 tpy - combined	monthly	N
facility wide	VOC and HAP credit, amount of VOC and HAP shipped off-site to a Hazardous Disposal Facility	There is no applicable limit for this requirement.	quarterly	N
facility wide	VOC and HAP credit, amount of VOC and HAP contained in materials that have exceeded their shelf life	There is no applicable limit for this requirement	monthly	N
facility wide	natural gas usage	150 MMscf per consecutive twelve month period	monthly	N
facility wide	Surface Coating Operation	Annual Notification of Changes Report	N/A	N
facility wide	Paint Stripping Operations	Less than 1 ton per year of methyl chloride	annually	N
facility wide	Records described in § 63.11177	N/A	as necessary	N
facility wide	Electrolytic Operations	Maintain tank cover 95% of electrolytic process time	daily	N
facility wide	Polishing Operations	Capture and control system	N/A	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
		manufacturer's specifications and instructions and inspections		
facility wide	Electrolytic Operations and Polishing Operations	Annual Compliance Certification Report	N/A	N
80	Hours of Operation	500 hr/yr	monthly	Y
	Fuel Specification	Maximum 15 ppm wt% S and either a minimum cetane index of 40 or a maximum aromatic content of 35% by volume	Per Fuel Shipment	N
81	Hours of Operation	500 hr/yr	monthly	Y
82	Monthly Throughput of Gasoline per MACT 6C	10,000 gal/mo 120,000 gal/yr	monthly	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
All Sources*	5%	§18.501	Natural gas only
80, 81	20%	§19.503(B)	Daily observation for events lasting 24 hours or more otherwise annual observation

*Excludes SN-80 and SN-81

18. DELETED CONDITIONS:

Former SC	Justification for removal
	None.

19. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Mold Machine Shop (Manufacturing Shop) Nat. Gas Fired Curing Oven	A-1	0.02	0.002	0.02	0.25	0.30	0.02	0.02
Mold Machine Shop (Manufacturing Shop) Nat. Gas Fired Curing Oven	A-1	0.04	0.003	0.03	0.43	0.52	0.03	0.03
Machine Shop (Manufacturing Shop) Nat. Gas Fired Oven	A-1	0.03	0.003	0.02	0.36	0.43	0.02	0.02
Wastewater Evaporator	A-1	0.05	0.004	0.04	0.54	0.64	0.04	0.04
Wastewater Evaporator	A-1	0.02	0.002	0.02	0.27	0.32	0.02	0.02
Natural gas fired pressure washers (2)	A-1	0.03	0.002	0.02	0.30	0.36	0.02	0.02
Total	A-1	0.19	0.016	0.15	2.15	2.57	0.15	0.15
FAA Burn Test Room	A-13	0.10	-	-	-	-	-	-
Cabinet Shop - Vacuum Filter No. 1	A-13	0.03	-	-	-	-	-	-
Cabinet Shop - Vacuum Filter No.2	A-13	0.03	-	-	-	-	-	-
Production Warehouse - Vacuum Filter	A-13	0.03	-	-	-	-	-	-
Machine Shop (Manufacturing Shop) drilling	A-13	-	-	0.28	-	-	-	-

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
and cutting								
Gel-Coat Booth	A-13	-	-	1.86	-	-	0.63	0.96
Cabinet Shop - Polish Room, Detail Polish Room and Buffing Room	A-13	0.08	-	-	-	-	-	-
Welding Inspection Booth	A-13	-	-	0.09	-	-	-	-
Wastewater Aeration	A-13	-	-	-	-	-	-	-
Machine Shop (Manufacturing Shop) Welding	A-13	-	-	-	-	-	-	-
Plating Shop - Diffuse Particulate Filter	A-13	Filtered air is blown back into the Plating Shop. No emissions are released to the atmosphere from the diffuse particulate filter.						
Service Center-Dust Collector/Filter	A-13	Filtered air is blown back into the Service Center. No emissions are released to the atmosphere by the dust collector/filter.						
Cabinet Shop - Sanding Room Baghouses (2)	A-13	0.25	-	-	-	-	-	-
Cabinet Shop - Six Diffuse Particulate Filters	A-13	Filtered air is blown back into the Cabinet Shop. No emissions are released to the atmosphere from the diffuse particulate filters.						
Cabinet Shop - Dust Collector with Fabric Filter	A-13	0.15	-	-	-	-	-	-
Manufacturing Area- Dust Collector with Fabric Filter	A-13	0.04	-	-	-	-	-	-
Headliner Shop - Sanding Booths (2)	A-13	0.08	-	-	-	-	-	-

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Total	A-13	0.79	-	2.23	-	-	0.63	0.96

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1876-AOP-R10

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Dassault Falcon Jet Corp.
 Permit Number: 1876-AOP-R11
 AFIN: 60-00617

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	247.4
Permit Type	Minor Mod	Permit Fee \$	500

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500
Check if Facility Holds an Active Minor Source or Minor Source General Permit	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	-0.7
Initial Title V Permit Fee Chargeable Emissions (tpy)	

HAPs not included in VOC or PM:

Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants:

All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		1.1	1.3	0.2		
PM ₁₀		1.1	1.3	0.2	0.2	1.3
PM _{2.5}		0	0	0		
SO ₂		0.4	0.4	0	0	0.4
VOC		165.9	165	-0.9	-0.9	165
CO		7.4	7.4	0		
NO _x		10.7	10.7	0	0	10.7
Total HAPs	<input type="checkbox"/>	22	22	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Acetone	<input checked="" type="checkbox"/>	70	70	0	0	70