STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1876-AOP-R4 AFIN: 60-00617

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

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

3. PERMIT WRITER:

Charles Hurt, P.E.

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Aircraft Manufacturing
NAICS Code: 336411

5. SUBMITTALS:

12/21/2011

6. REVIEWER'S NOTES:

Dassault Falcon (AFIN: 60-00617) owns and operates an aerospace manufacturing and rework facility located at 10th & Leonard Streets, Little Rock, Arkansas 72202. Dassault requested modifications to permit a third stack (SN-79) at the Paint Shop Prep Bay 3, a MIS Backup generator (SN-80), and two emergency generators (SN-81) at the service center. The applicable requirements for NSPS IIII and NESHAP ZZZZ for the engines were incorporated. Overall permitted emissions increased by 0.4 tpy PM/PM_{10}, 0.3 tpy SO_2, 0.9 tpy VOC, 1.1 tpy CO, and 3.2 tpy NO_X.

7. COMPLIANCE STATUS:

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

The facility was last inspected on November 7, 2011 and determined not to be operating in accordance with Permit No. 1876-AOP-R3. Three unpermitted emergency RICE (SN-80 and SN-81) and an unpermitted stack at Paint Shop Prep Bay 3 (SN-79) were discovered following inspection. A CAO is pending.

8. PSD APPLICABILITY:

a. Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

b. Is the facility categorized as a major source for PSD? N
Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list?

If yes, 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

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. MODELING:

Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu g/m^3$)	Averaging Time	Highest Concentration* ($\mu g/m^3$)	% of NAAQS
PM_{10}	1.6	150	24-Hour	62.3	41.5

* Includes background concentration

Non-Criteria Pollutants:

This permit contains a TLV table for non-criteria pollutants. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLV) that pass the PAER or PAIL. Therefore, modeling of specific non-criteria pollutants was not performed.

TLV greater than or equal to (mg/m^3)	Maximum Single HAP Allowable Weight Content (wt %)**
78.7	100%
70.8	90%
63.0	80%
55.1	70%
47.3	60%
39.4	50%
31.5	40%
23.6	30%
15.8	20%
7.9	10%
4.0	5%
3.2	4%
2.4	3%
1.6	2%
0.8	1%
*	<1%

* Several materials used at the facility contain trace amounts (<1% by wt.) of HAPs with low TLVs such as formaldehyde. Such HAPs in trace amounts are not limited by this table.

** This table is based on a maximum HAP concentration of 8.50 lb HAP per gallon of material, as applied.

Other Modeling:

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
01	Mass Balance	VOC 3.5 lb/hr HAP 2.67 lb/hr Acetone 1.40 lb/hr			
08A	Mass Balance	VOC 4.8 lb/hr HAP 1.12 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
08B	Mass Balance	VOC 4.8 lb/hr HAP 1.12 lb/hr			
08C	Mass Balance	VOC 4.8 lb/hr HAP 1.12 lb/hr			
08D	Mass Balance	VOC 4.8 lb/hr HAP 1.12 lb/hr			
08E	Mass Balance	VOC 4.8 lb/hr HAP 1.12 lb/hr			
08F	Mass Balance	VOC 4.8 lb/hr HAP 1.12 lb/hr			
09	Mass Balance	VOC 10.2 lb/hr HAP 1.58 lb/hr			
10	Mass Balance	VOC 12.8 lb/hr HAP 3.64 lb/hr Acetone 2.90 lb/hr			
11	Mass Balance	VOC 12.3 lb/hr HAP 3.52 lb/hr Acetone 2.70 lb/hr			
12	Mass Balance	VOC 14.4 lb/hr HAP 3.64 lb/hr Acetone 2.90 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
13	Mass Balance	VOC 8.5 lb/hr HAP 4.00 lb/hr			
20	Mass Balance	VOC 6.8 lb/hr HAP 3.14 lb/hr Acetone 10.00 lb/hr			
22	Mass Balance	VOC 6.8 lb/hr HAP 3.14 lb/hr Acetone 10.00 lb/hr			
25	Mass Balance	VOC 8.5 lb/hr HAP 4.00 lb/hr			
26A	Mass Balance	VOC 3.9 lb/hr HAP 5.03 lb/hr			
26B	Mass Balance	VOC 3.9 lb/hr HAP 5.03 lb/hr			
27	Mass Balance	VOC 1.7 lb/hr HAP 0.27 lb/hr			
28	Mass Balance	VOC 0.7 lb/hr HAP 0.70 lb/hr			
30	Mass Balance	VOC 42.6 lb/hr HAP 1.3 lb/hr Acetone 266.00 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
31	Mass Balance	VOC 42.6 lb/hr HAP 1.3 lb/hr Acetone 266.00 lb/hr			
32	Mass Balance	VOC 42.6 lb/hr HAP 1.3 lb/hr Acetone 266 lb/hr			
33	Mass Balance	VOC 0.6 lb/hr HAP 0.01 lb/hr			
34	Mass Balance	VOC 0.6 lb/hr HAP 0.01 lb/hr			
35	Mass Balance	VOC 0.3 lb/hr HAP 0.01 lb/hr			
37	Mass Balance	VOC 17.9 lb/hr HAP 17.85 lb/hr			
39	Mass Balance	VOC 64.0 lb/hr HAP 1.89 lb/hr Acetone 399.00 lb/hr			
40	Mass Balance	VOC 64.0 lb/hr HAP 1.89 lb/hr Acetone 399.00 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
42	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
43	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
45	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
46	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
48	Mass Balance	VOC 1.8 lb/hr HAP 0.29 lb/hr			
49	Mass Balance	VOC 12.3 lb/hr HAP 3.52 lb/hr Acetone 2.70 lb/hr			
50	Mass Balance	VOC 21.4 lb/hr HAP 10.30 lb/hr Acetone 6.30 lb/hr			
51	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
52	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			
53	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			
54	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			
55	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			
56	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			
57	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			
58	Mass Balance	VOC 1.7 lb/hr HAP 0.19 lb/hr			
59	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
60	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
61	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
62	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
63	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
64	Mass Balance	VOC 9.9 lb/hr HAP 3.01 lb/hr Acetone 96.00 lb/hr			
65	Mass Balance	VOC 42.7 lb/hr HAP 1.26 lb/hr Acetone 265.90 lb/hr			
66	Mass Balance	VOC 42.7 lb/hr HAP 1.26 lb/hr Acetone 265.90 lb/hr			
67	Mass Balance	VOC 1.8 lb/hr HAP 0.29 lb/hr			
68	Mass Balance	VOC 1.8 lb/hr HAP 0.29 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
69	Mass Balance	VOC 1.3 lb/hr HAP 0.04 lb/hr			
70	Mass Balance	VOC 0.2 lb/hr HAP 0.06 lb/hr			
71	Mass Balance	VOC 3.8 lb/hr HAP 1.41 lb/hr			
72	Mass Balance	VOC 3.8 lb/hr HAP 1.41 lb/hr			
73	Mass Balance	VOC 3.8 lb/hr HAP 1.41 lb/hr			
74	Mass Balance	VOC 2.9 lb/hr HAP 0.83 lb/hr Acetone 0.80 lb/hr			
75	Mass Balance	VOC 6.8 lb/hr HAP 2.67 lb/hr Acetone 10.00 lb/hr			
76	Mass Balance	VOC 1.3 lb/hr HAP 0.04 lb/hr			
77	Mass Balance	VOC 0.2 lb/hr HAP 0.06 lb/hr			

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
78	AP-42	PM/PM_{10} 7.6 lb/MMcf SO_2 0.6 lb/MMcf VOC 5.5 lb/MMcf CO 84 lb/MMcf NO_X 100 lb/MMcf			
79	Mass Balance	VOC 42.7 lb/hr HAP 1.26 lb/hr Acetone 265.90 lb/hr			
80	NSPS AP-42	PM/PM_{10} 0.1 lb/hr SO_2 0.4 lb/hr VOC 0.4 lb/hr CO 1.3 lb/hr NO_X 1.1 lb/hr			158 hp 500 hr/yr operation
81	AP-42	PM/PM_{10} 0.9 lb/hr SO_2 0.8 lb/hr VOC 1.0 lb/hr CO 2.5 lb/hr NO_X 11.4 lb/hr			Two Engines 183 hp, each 500 hr/yr operation

13. TESTING REQUIREMENTS:

The permit does not require stack testing.

14. MONITORING OR CEMS

The permit does not require monitoring devices or CEMS.

15. RECORDKEEPING REQUIREMENTS:

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

SN	Recorded Item	Limit (as established in permit)	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
80	Hours of Operation	500 hr/yr	monthly	Y
	Fuel Specification	Maximum 15 ppm wt% S and either a minimum centane 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

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
78	5%	§18.501	Inspector's Observation
80, 81	20%	§19.503 (B)	Daily observation for events lasting 24 hours or more otherwise annual observation

17. DELETED CONDITIONS:

No condition was deleted for this permit revision.

18. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Mold Machine Shop Curing Oven 2.0 MMBTU/hr	A-1	0.07	0.01	0.05	0.73	0.86	-	-
Mold Machine Shop Curing Oven 1.2 MMBTU/hr	A-1	0.04	0.01	0.03	0.44	0.52	-	-
Machine Shop Oven <1 MMBTU/hr	A-1	0.04	0.01	0.03	0.37	0.43	-	-
Wastewater Evaporator* 1.5 MMBTU/hr	A-1	0.05	0.01	0.04	0.55	0.65	-	-
Group A-1 Totals		0.20	0.04	0.15	2.09	2.46	-	-
Automotive Fuel Storage Tank 2,500 gallon	A-13						0.13	0.33
FAA Burn Test Room	A-13	0.1						
Cabinet Shop (Formerly SN-29)	A-13	0.03						
Cabinet Shop (Formerly SN-38)	A-13	0.03						
Production Warehouse	A-13	0.03						
Machine Shop Drilling and Cutting	A-13			0.05			0.05	0.05
Service Center Small Parts Paint Booth	A-13			0.12			0.02	0.046
Paint Vault Sample Spray Booth	A-13			0.24			0.24	0.24
Gel-Coat Booths (2 Booths)	A-13			0.75			0.62	0.75
Cabinet Shop – Polish, Detail Polish, and Buffing Rooms	A-13	0.18						
Weld Inspection Booth	A-13			0.98				
Paint Shop – Sanding Area Enclosure	A-13	0.21						
Wastewater Aeration*	A-13							
Machine Shop Welding **	A-13							
Group A-13 Totals		0.58		2.14			0.62	1.42

* Although VOC and HAPs are present, the permitted sources assume all VOC's and HAPs are emitted.

** Tungsten Inert Gas (TIG) welding uses non-consumable electrodes.

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1876-AOP-R3

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Phillip Murphy, P.E.
Engineering Supervisor, Air Division

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 08-30-11

Facility Name:
Permit Number:
AFIN:

$/ton factor	22.65	Annual Chargeable Emissions (tpy)	248
Permit Type	Modification	Permit Fee $	1694.22

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	☐
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	74.8
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	☑	0.6	1	0.4	0.4	1
PM_{10}	☐	0.6	1	0.4		
SO_2	☑	0.1	0.4	0.3	0.3	0.4
VOC	☑	165	165.9	0.9	0.9	165.9
CO	☐	6.3	7.4	1.1		
NO_X	☑	7.5	10.7	3.2	3.2	10.7
1,3-Butadiene	☐	0	0.00045	0.00045		
Acetaldehyde	☐	0	0.008822	0.008822		
Acrolein	☐	0	0.001066	0.001066		
Benzene	☐	0	0.000856	0.000856		
Formaldehyde	☐	0	0.013526	0.013526		
Naphthalene	☐	0	0.000975	0.000975		
Toluene	☐	0	0.004703	0.004703		
Xylene	☐	0	0.003279	0.003279		
Acetone	☑	0	70	70	70	70