

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0617-AOP-R16 AFIN: 07-00035

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Aerojet Rocketdyne, Inc.
East Walton Road, (Highway 274), Highland Industrial Park
East Camden, Arkansas 71701

3. PERMIT WRITER:

Shawn Hutchings

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Ammunition (except Small Arms) Manufacturing
NAICS Code: 332993

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
1/19/2018	Minor Mod	New Emergency Engines
1/09/2018	Administrative Amendment	New grit blaster (insignificant)
2/21/2018	Administrative Amendment	New Water Heaters (insignificant)

6. REVIEWER'S NOTES:

Aerojet Rocketdyne, Inc. currently operates a manufacturing facility located in the Highland Industrial Park near East Camden, Arkansas. This permit includes a minor modification to install two emergency generators, SN-105 and 106, and two administrative amendments to add a grit blaster (category A-13) and three water heaters (category A-1) to the insignificant activities list. Sources SN-25B and 25D were removed. Permitted emissions increased. 0.4 tpy of particulate by 0.4 tpy of SO₂, 0.5 tpy of VOC, 1 tpy of CO, and 8.4 tpy of 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.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
 If yes, were GHG emission increases significant? 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 for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-86, SN-87, SN-89 and SN-95 102 103	VOC CO NO _x	NSPS JJJJ
81 86 87 89 90 91 92 93 95	HAPs	MACT ZZZZ
71	VOC/HAP	NSPS Kb
72	VOC/HAP	NSPS Kb
Plantwide	VOC/HAP	NESHAP Part 63 Subpart GG
02A 02B 02C 02D 02E 02F	HAPs	MACT DDDDD

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
02H		
SN-25A		
SN-25B		
SN-25C		
SN-25D		
SN-25E		
SN-25F		
SN-25G		
SN-69A		
SN-69B		
SN-69C		
SN-69D		
SN-69E		
SN-69F		
SN-69G		
SN-69H		
SN-94		
SN-96		
SN-97		

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

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

If yes, are applicable requirements included and specifically identified in the permit? N

If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A		

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:

No increases to pollutants of concern. No analysis performed.

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
105 106	AP-42 natural gas engines or diesel engines.	Varied	none		

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
No testing was added in this permit.				

15. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
No monitoring was added in this permit.				

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)
Engines	Hours of Operation	500	Monthly	Y
03	Material combusted	Table in Specific Condition 12	Monthly	Y
Plantwide	Material Usages in Contents	Tables In Plantwide Condition 7 through 20	Monthly	Y
Plantwide	Subpart GG Records	Plantwide 24 through 39	Monthly	Y

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
105	5%	Department Guidance	Natural gas combustion
106	20%	Department Guidance	Proper equipment operation

18. DELETED CONDITIONS:

Former SC	Justification for removal
No conditions were deleted.	

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	
DOA Storage Tank (3,500 gallons)	Group A, Number 3								
MLRS Igniter Assembly (SN-55) at Building	Group A, Number 13			0.09				.06	.06

M-85								
SN-60 Ingredient Preparation Room	Group A, Number 13	0.03						
SN-66 Lathes at Building 2- SH-3	Group A, Number 13	.28						
SN-70 Polymer Tank Farm	Group A, Number 13			0.04				
Motor Case Cutting Equipment	Group A, Number 13	.27						
Motor Case Grinding	Group A, Number 13	.14						
Composite Case Grinding Machine at Building M-8	Group A, Number 13	.01						
Dry Ice Blasting	Group A Number 13	CO ₂ only. Not regulated until threshold met.						
Grit Blaster	Group A Number 13	0.19						
Total	A-13	.92		.13		.06	.06	
Water Heater Building #47	Group A, Number 1	0.14	0.01	0.09	1.19	1.41	0.01	
Water Heater Building #48	Group A, Number 1	0.1	0.1	0.1	0.8	0.9		0.02
Water	Group A,	0.1	0.1	0.1	0.6	0.7		0.02

Heater Building #66	Number 1							
Water Heater Building #66	Group A, Number 1	0.1	0.1	0.1	0.6	0.7		0.02
Total	A-1	0.5	0.4	0.4	3.2	3.7		0.09
Diesel Tank for Generator at M-2 Building	Group A, Number 3							

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 #
0617-AOP-R15

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Aerojet Rocketdyne, Inc.
 Permit #: 0617-AOP-R16
 AFIN: 07-00035

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	756.95
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)	9.7
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		206.6	207	0.4		
PM ₁₀		206.6	207	0.4	0.4	207
PM _{2.5}			0	0		
SO ₂		6.5	6.9	0.4	0.4	6.9
VOC		171.9	172.4	0.5	0.5	172.4
CO		103.3	104.3	1		
NO _x		96.4	104.8	8.4	8.4	104.8
Lead	<input type="checkbox"/>	6.73	6.73	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Acetaldehyde	<input type="checkbox"/>	0.1	0.1	0		
Acrolein	<input type="checkbox"/>	0.1	0.1	0		
Benzene	<input type="checkbox"/>	0.2	0.2	0		
1,2-Butylene Oxide	<input type="checkbox"/>	1.73	1.73	0		
1,3 Butadiene	<input type="checkbox"/>	0.1	0.1	0		
Cadmium	<input type="checkbox"/>	0.08	0.08	0		
Chlorine	<input checked="" type="checkbox"/>	7.83	7.83	0	0	7.83
Chromium	<input type="checkbox"/>	0.64	0.64	0		
Cumene	<input type="checkbox"/>	1.68	1.68	0		
DGMbEA	<input type="checkbox"/>	1.86	1.86	0		
DGMeEA	<input type="checkbox"/>	3.61	3.61	0		
Ethyl Acrylate	<input type="checkbox"/>	4.83	4.83	0		
Ethyl Benzene	<input type="checkbox"/>	9.33	9.33	0		
Formaldehyde	<input type="checkbox"/>	0.5	0.5	0		
Hydrogen Chloride	<input checked="" type="checkbox"/>	145.4	145.4	0	0	145.4
Hydrogen Fluoride	<input checked="" type="checkbox"/>	0.8	0.8	0	-1.11E-16	0.8
Methanol	<input type="checkbox"/>	19.08	19.08	0		
Methylene Chloride	<input checked="" type="checkbox"/>	26.02	26.02	0	-3.55E-15	26.02
Methyl Isobutyl Ketone	<input type="checkbox"/>	36.62	36.62	0		
Phenol	<input type="checkbox"/>	4.4	4.4	0		
Tetrachloroethylene	<input checked="" type="checkbox"/>	2.6	2.6	0	-4.44E-16	2.6
Toluene	<input type="checkbox"/>	44.95	44.95	0		
1,1,1-Trichloroethane	<input checked="" type="checkbox"/>	39.56	39.56	0	0	39.56
Trichloroethylene	<input type="checkbox"/>	6.68	6.68	0		
Xylene	<input type="checkbox"/>	37.63	37.63	0		
HAPs	<input type="checkbox"/>	0.81	0.81	0		
Acetone	<input checked="" type="checkbox"/>	39.1	39.1	0	-7.11E-15	39.1
Ammonia	<input checked="" type="checkbox"/>	0.04	0.04	0	0	0.04

