

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1865-AOP-R9 AFIN: 07-00033

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Armtec Countermeasures Co.
Highland Industrial Park, Building M-7
East Camden, Arkansas 71701

3. PERMIT WRITER:

Jesse Smith

4. NAICS DESCRIPTION AND CODE:

NAICS Description: All Other Miscellaneous Chemical Product and Preparation
Manufacturing
NAICS Code: 325998

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
1/25/2018	Modification	Added emergency generator

6. REVIEWER'S NOTES:

Armtec Countermeasures Company (Armtec) is located at Building M-25 in the Highland Industrial Park, East Camden, Calhoun County, Arkansas. Armtec manufactures and tests explosive ordnance and disposes of explosive/pyrotechnic waste in open thermal treatment units. This permitting action is to add an installed emergency generator (SN-05) to the permit. This source and the applicable requirements from NSPS Subpart JJJJ have been added. The permitted annual emission changes from this modification are as

follows: an increase of 0.1 tpy PM, PM₁₀, SO₂, and VOC, an increase of 0.4 tpy CO, an increase of 0.2 tpy NO_x, and an increase of 0.01 tpy Total HAPs.

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 January 9, 2018. An emergency generator that was not in the permit was noted at this time and has been added to the permit during this modification.

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)
05	HAPs	NESHAP JJJJ

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.)

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. AMBIENT AIR EVALUATIONS:

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:

Based on Department procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards Y
 If exempt, explain: No H₂S present

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H ₂ S	20 parts per million (5-minute average*)	0	Y
	80 parts per billion (8-hour average) residential area	0	Y
	100 parts per billion (8-hour average) nonresidential area	0	Y

*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C_p = 5-minute average concentration

C_m = 1-hour average concentration

t_m = 60 minutes

t_p = 5 minutes

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	450,000 lb VOC/year			Annual limits based on production rates. Hourly limits based on 4,000 hour /year operation
02	AP-42 Table 15.8.16-1 (7/2009) AP-42 Table 15.8.16-2 (7/2009)	<u>lb/lb explosive wt</u> NOx: 4.34E-04 CO: 4.20E-03 VOC: 1.30E-03 PM: 2.80E-02 PM ₁₀ : 2.00E-02 SO ₂ : 2.60E-02			Synthetic limitation of 40,000 lb/yr explosive material testing. Total maximum hourly testing rate is 90 lb/hr
03		Scenario A: Synthetic limitation of 500 lb/day and 130,000 lb/yr explosive material			
					Scenario B: Synthetic limitation of 1,000 lb/day and 192,000 lb/yr explosive material
04	AP-42 Tables 1.4-1 and 1.4-2	<u>lb/MMscf</u> NOx:100 CO: 84 VOC: 11 PM/PM ₁₀ : 7.6 SO ₂ :0.6			Group of boilers with a total natural gas heat input of 40 MMBtu/hr

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
N/A				

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)
SN-05	Operation time	Timer	Monthly	N

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)
01	VOC Purchased	225 tpy	Monthly	Y
01	Acetone Purchased	350 tpy	Monthly	Y
02	Amount of Ordinance tested	40,000 lb/year	Monthly	Y
03	Amount of Waste Burned	500 lb/day	Daily	Y
03	Amount of Waste Burned	130,000 lb/year	Monthly	Y
04	Natural Gas Throughput	40.0 MMBtu/hr	Upon change of equipment	N
05	Operation Time	500 hrs/yr	Monthly	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
02	No Limit	Waiver from Opacity limits of Reg. 19 granted by July 17, 2002 letter from ADEQ Director	N/A
03	No Limit		N/A
04	5%	Department Guidance	Daily Observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

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	
Misc. Coatings, Adhesives, and Inks Usage	13			0.5					0.07

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 #
1865-AOP-R8

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Armtec Countermeasures Co.
 Permit #: 1865-AOP-R9
 AFIN: 07-00033

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	600
Permit Type	Modification	Permit Fee \$	1000

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)	0.5
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 condensable 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		4.6	4.7	0.1	0.1	4.7
PM ₁₀		3.7	3.8	0.1		
PM _{2.5}		0	0	0		
SO ₂		0.3	0.4	0.1	0.1	0.4
VOC		227.2	227.3	0.1	0.1	227.3
CO		15	15.4	0.4		
NO _x		17.4	17.6	0.2	0.2	17.6
Total HAPs	<input type="checkbox"/>	9.92	9.93	0.01		

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"/>	350	350	0	0	350