

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1865-AOP-R8 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:

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
11/22/2016	Title V Renewal	SN-02 grouped together instead of separate SN-03 increased throughput
12/13/2016	Administrative Amendment	None

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 renew and modify the facility's permit. The emission sources SN-02A, SN-02B, and SN-02C have been grouped together as SN-02, SN-03 has been updated with a new potential scenario pending the approval of a modification to the facility's RCRA permit, and an additional composition mixer has been added to the list of emission points grouped under SN-01. Permitted annual emission changes from this modification are as follows: increase of 0.8 tpy PM, increase of 0.7 tpy PM₁₀, increase of 1.0 tpy VOC, increase of 0.1 tpy CO, increase of 9.52 tpy Total HAPs, increase of 3.5 tpy Acetone and decrease of 9.5 tpy of n-Hexane.

7. COMPLIANCE STATUS:

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

The permittee was last inspected for their air permit on April 7, 2016. There were no areas of concern noted at that time.

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.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
N/A		

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. AMBIENT AIR EVALUATIONS:

a) Reserved.

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

12. 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	lb/lb explosive wt NOx: 4.34E-04			Synthetic limitation of 40,000 lb/yr explosive material

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
03	(7/2009) AP-42 Table 15.8.16-2 (7/2009)	CO: 4.20E-03 VOC: 1.30E-03 PM: 2.80E-02 PM ₁₀ : 2.00E-02 SO ₂ : 2.60E-02			testing. Total maximum hourly testing rate is 90 lb/hr
					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> NO _x :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

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
N/A				

14. 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)
N/A				

15. RECORDKEEPING REQUIREMENTS:

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

Misc. Coatings, Adhesives, and Inks Usage	13			0.5				0.07
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19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1865-AOP-R7

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Armtec Countermeasures Co.
 Permit #: 1865-AOP-R8
 AFIN: 07-00033

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	599.5
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)	5.3
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		3.8	4.6	0.8	0.8	4.6
PM ₁₀		3	3.7	0.7		
PM _{2.5}		0	0	0		
SO ₂		0.3	0.3	0	0	0.3
VOC		226.2	227.2	1	1	227.2
CO		14.9	15	0.1		
NO _x		17.4	17.4	0	0	17.4
n-Hexane	<input type="checkbox"/>	9.5	0	-9.5		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total HAPs	<input type="checkbox"/>	0.4	9.92	9.52		
Acetone	<input checked="" type="checkbox"/>	346.5	350	3.5	3.5	350