



ARKANSAS
Department of Environmental Quality

MAY 04 2017

Charles King
Manager of Environmental and Training
Armtec Countermeasures Co.
P.O. Box 3297
East Camden, AR 71711

Dear Mr. King:

The enclosed Permit No. 1865-AOP-R8 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 11/22/2016.

After considering the facts and requirements of A.C.A. §8-4-101 et seq. as referenced by §8-4-304, and implementing regulations, I have determined that Permit No. 1865-AOP-R8 for the construction and operation of equipment at Armtec Countermeasures Co. shall be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

A handwritten signature in black ink, appearing to be "Stuart Spencer", written over a horizontal line.

Stuart Spencer
Associate Director, Office of Air Quality

Enclosure: Final Permit

ADEQ OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation 26:

Permit No. : 1865-AOP-R8

IS ISSUED TO:

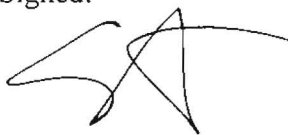
Armtec Countermeasures Co.
Highland Industrial Park, Building M-7
East Camden, AR 71701
Calhoun County
AFIN: 07-00033

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

MAY 04 2017 AND MAY 03 2022

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:



Stuart Spencer
Associate Director, Office of Air Quality

MAY 04 2017

Date

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

Table of Contents

SECTION I: FACILITY INFORMATION	4
SECTION II: INTRODUCTION	5
Summary of Permit Activity	5
Process Description	5
Regulations	7
Emission Summary	8
SECTION III: PERMIT HISTORY	10
SECTION IV: SPECIFIC CONDITIONS	12
SN-01 & SN-01-R1 Process Solvent Emissions & R-1 Area R& D Facility	12
SN-02 (SN-02A, 02B, 02C) Ordnance Testing	14
SN-03 Open Thermal Treatment Units (OTTUs) – R-15 Area	16
SN-04 Natural Gas Fired Boilers	19
SECTION V: COMPLIANCE PLAN AND SCHEDULE	21
SECTION VI: PLANTWIDE CONDITIONS	22
Title VI Provisions	22
SECTION VII: INSIGNIFICANT ACTIVITIES	25
SECTION VIII: GENERAL PROVISIONS	26
Appendix A – Exemption Approval Letter	

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

List of Acronyms and Abbreviations

Ark. Code Ann.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
C.F.R.	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO _x	Nitrogen Oxide
PM	Particulate Matter
PM ₁₀	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO ₂	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

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

SECTION I: FACILITY INFORMATION

PERMITTEE:	Armtec Countermeasures Co.
AFIN:	07-00033
PERMIT NUMBER:	1865-AOP-R8
FACILITY ADDRESS:	Highland Industrial Park, Building M-7 East Camden, AR 71701
MAILING ADDRESS:	P.O. Box 3297 East Camden, AR 71711
COUNTY:	Calhoun County
CONTACT NAME:	Charles King
CONTACT POSITION:	Manager of Environmental and Training
TELEPHONE NUMBER:	(870) 574-1712
REVIEWING ENGINEER:	Jesse Smith
UTM North South (Y):	Zone 15: 3721134.97 m
UTM East West (X):	Zone 15: 528482.16 m

SECTION II: INTRODUCTION

Summary of Permit Activity

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 9.52 tpy of n-Hexane.

Process Description

The facility manufactures magnesium/Teflon flares. Hexane and acetone are used as solvents in the production process. All of the solvent emissions are grouped together as SN-01 for the purposes of this permit. Acetone is used as the solvent during the mixing of the raw materials used to make the powder. Hexane is used to wash the acetone from the mix. The mixing/washing process generates a liquid stream of mixed hexane and acetone. This mixture is sent to the Atank farm@ area where the hexane is recovered for reuse and the acetone is emitted to the atmosphere. Hexane fumes are generated during the pre-drying process and the vacuum tumbling process. A hexane recovery system collects the exhaust vapor stream from the vacuum tumblers and condenses the hexane from that stream for reuse. Acetone is also used as a general cleanup solvent for the process equipment.

The following is a summary of the primary hexane/acetone emission points in the flare production line.

Mixing Bays:

- 4 mixing bays located at the main facility, with 2 Cowles mixers in each bay
- An additional composition mixer at the M-75 Building

Pre-Dryers:

- 2 bays, 1 pre-dryer in each, vibratory bed-type dryer with a heated vapor pull-off system

Vacuum Tumblers:

- 2 bays with 1 Abby Vacuum Tumbler (heated water jacket) in each bay

Tank Farm:

- 2 each 2250 gallon vertical acetone/hexane tanks
- 2 each 2150 gallon vertical acetone/hexane tank
- 1 each 1850 gallon vertical hexane tank
- 1 each 2100 gallon horizontal hexane tank
- 1 each 6100 gallon horizontal hexane tank
- 1 each 6100 gallon horizontal acetone tank
- 1 each 6100 gallon horizontal acetone/water tank with air sparger

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

1 each 6200 gallon horizontal water/acetone tank with air sparger

1 each 1037 gallon horizontal acetone tank

2 each 1037 gallon horizontal acetone/water tanks

R-1/R-15 Area:

The R-1/R-15 area is located several miles away from the main plant. The function of the R-15 facility is to dispose of explosives and explosives-contaminated wastes. The waste material is placed in four Open Thermal Treatment Units (OTTUs) and ignited. The OTTUs are grouped as SN-03.

The R-1 area contains a small research facility. This research facility contains mixing, drying, and tumbling equipment and emissions are included as part of SN-01. The R-1 Area Research and Development Facility produces lab scale blends of flare powders. The area contains a small mixer with a capacity of about 1 kg and a larger mixer with a capacity of 10 kg.

The flares are tested in several areas around the main facility and at the R-1 facility. There are two tunnel testing areas and two ejection testing areas. The flare testing is grouped as SN-02.

There are numerous small natural gas fueled boilers and water heaters (grouped as SN-04) at the facility.

Armttec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective March 14, 2016
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective March 14, 2016
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective March 14, 2016

This facility is classified as a minor source of greenhouse gas emissions because it has the potential to emit less than 100,000 tpy CO₂e or less than 100 tpy mass basis combined greenhouse gases.

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	30.9	4.6
		PM ₁₀	22.1	3.7
		PM _{2.5}	See Note*	
		SO ₂	0.3	0.3
		VOC	114.5	227.2
		CO	7.9	15.0
		NO _x	4.6	17.4
		Total HAPs	N/A	9.92
Air Contaminants ***		Acetone***	N/A	350.0
01	Process Solvents	VOC	112.5	225.0
		Total HAPs**	N/A	9.50
		Acetone***	N/A	350.0
02	Ordnance Testing	PM	2.6	0.6
		PM ₁₀	1.8	0.4
		SO ₂	0.1	0.1
		VOC	0.2	0.1
		CO	0.4	0.1
		NO _x	0.1	0.1
		Total HAPs	N/A	0.01
03A ₁	Open Thermal Treatment Units (Scenario A: 500 lb/day)	PM	14.0	1.9
		PM ₁₀	10.0	1.3
		SO ₂	0.1	0.1
		VOC	0.7	0.1
		CO	2.1	0.3
		NO _x	0.3	0.1
		Total HAPs	N/A	0.01

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

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
03B ₁	Open Thermal Treatment Units (Scenario B: 1000 lb/day)	PM	28.0	2.7
		PM ₁₀	20.0	2.0
		SO ₂	0.1	0.1
		VOC	1.3	0.2
		CO	4.2	0.4
		NO _x	0.5	0.1
		Total HAPs	N/A	0.01
04	Natural Gas Fired Boilers	PM	0.3	1.3
		PM ₁₀	0.3	1.3
		SO ₂	0.1	0.1
		VOC	0.5	1.9
		CO	3.3	14.5
		NO _x	4.0	17.2
		Total HAPs	N/A	0.40

*PM_{2.5} limits are source specific, if required. Not all sources have PM_{2.5} limits.

**HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

***Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

¹The throughput limit for SN-03 will be increased when the facility's RCRA permit is amended. Scenario A is in effect until this amendment is finalized. Scenario B emission rates used for the Total Allowable Emissions Summary.

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

SECTION III: PERMIT HISTORY

Permit No. 750-A was issued to Tracor Aerospace on April 5, 1985. This was the initial permit for the R-1/R-15 area. In the permit, the facility was limited to burning no more than 100 lb of waste per 24-hour period. Emission levels were not quantified at this time.

Permit No. 750-AR-1 was issued to Tracor Aerospace on April 7, 1988. This modification was issued in order to allow for the operation of two additional open burn pits (for a total of four) and to allow for the burning of up to 100 lb of waste per pit per day, for a total of 400 lb waste burned per day. Emission levels were not quantified at this time.

Permit No. 1865-AOP-R0 was issued to Marconi Aerospace on January 19, 2000. This was the initial air permit for this existing Title V flare production facility. This permit quantified emissions of VOC and hexane from the flare production process. Acetone emissions were omitted from the permit application by the permittee, and were not included in the permit at this time. The ordnance testing process was also omitted from the permit application. Emissions were permitted at 80.0 tpy of VOC and 80.0 tpy hexane.

Permit #1865-AOP-R1 was issued November 12, 2002. This was the initial modification to the operating air permit for this facility. This modification allowed an increased hexane usage at the facility and included acetone emissions, which were omitted from the previous permit. This modification also updated the permit to include a separate facility within the same industrial park, which is also operated by BAE for the purpose of research and development, and for the disposal of undesirable flare material by burning in open pits. This separate facility was previously permitted in minor source air permit No. 750-AR-1. This modification also incorporated a change to the CSN assigned to the facility. The plant was previously assigned a CSN for Ouachita County, when it is actually located in Calhoun County. A new CSN for Calhoun County of 07-0033 was assigned to this permit. This was the CSN previously assigned to the R1/R-15 area. Due to the inclusion of the previously unpermitted ordnance testing emissions, previously unpermitted acetone emissions, and the increase in hexane solvent usage, permitted emissions in this modification increased by 85.6 tpy of PM/PM₁₀, 5.7 tpy NO_x, 1.7 tpy CO, 145.0 tpy VOC, 145.0 tpy hexane, 0.35 tpy hydrogen fluoride, and 0.05 tpy fluorine.

Permit #1865-AOP-R2 was issued February 2, 2006. This permitting action served as a renewal of the Title V permit. Additionally the facility increased the amount of ordnance tested from 20,000 lbs/year to 40,000 lbs/year. Boilers and process heaters that were previously listed as insignificant sources along with a new 2.1 MMBTU/hr boiler were listed as a new source, SN-04. The Insignificant Activities List was updated to include the following: a 2.1 MMBTU/hr Hot Water Boiler; a 0.84 MMBTU/hr Boiler; the usage of primer, ink, ink thinner and sealant; the usage of acetone for cleaning purposes. Lastly, SN-02 hourly emissions increased due to updated emission factors. Permitted emissions increased by 12.0 tons/year (tpy) of PM/PM₁₀, 0.1 tpy of SO₂, 0.4 tpy of VOC, 5.1 tpy of CO, 8.4 tpy of NO_x, 0.34tpy of HF, 0.01 tpy of F, and 20.25 tpy of Acetone.

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

Permit #1865-AOP-R3 was issued on September 5, 2007. This permitting action allowed the addition of another slurry mixing bay with two Morehouse Cowles mixers (SN-01). The addition of the bay and mixers to the M-75 production area was needed to reduce the amount of explosive handling. This modification did not increase the current permitted emission rates.

Permit #1865-AOP-R4 was issued on April 14, 2008. This permit modification was for the addition of a blend area with a High Shear mixer (SN-01) at the R-1 facility. The current capacity required personnel to make multiple mixes to obtain sufficient working quantities. The additional blend area with a larger mixer directly reduced the usage of the smaller mixer. Throughput and permitted emission rates remained the same.

The permit was also modified to allow the facility to substitute iso-hexane for n-hexane during the production of flares. Permitted Hexane emission rate decreased to 9.5 ton/year (tpy). The VOC emissions remained at 225 tpy.

Permit #1865-AOP-R5 was issued on February 24, 2011. This permit modification was to construct and operate a separate upgraded blend area to the R-1 Research & Development facility to include a 10 kg high shear mixer. Annual permitted emissions remained the same.

Permit #1865-AOP-R6 was issued on May 23, 2012. This modification renewed the existing permit. There were no physical changes at the facility; however, permitted emission limits were revised for SN-02A, SN-02B, SN-02C, and SN-03. Permitted limits were based on AP-42 factors for these sources rather than mass balance estimates of the products of combustion and ordnance testing. Permitted emission limits decreased as follows: 95.1 tons/year (tpy) PM₁₀, 94.3 tpy PM, 6.3 tpy NO_x, 2.93 tpy HF, and 0.07 tpy F. Permitted emissions increased as follows: 0.2 tpy SO₂, 0.8 tpy VOC, and 2.2 tpy CO.

Permit #1865-AOP-R7 was issued on December 30, 2014. This permit modification updated and clarified the conditions associated with the Natural Gas Fired Boilers (SN-04). The previous permit noted the inclusion of 17 boilers permitted as SN-04. This modification included the existing process boilers and water heaters listed in the previous permit as insignificant activities and allowed for possible future changes involving small boilers. Total permitted emission rates increased as follows: 0.6 tons/year (tpy) PM₁₀/PM, 7.3 tpy CO, 8.7 tpy NO_x, and 0.4 tpy of Total HAPs.

SECTION IV: SPECIFIC CONDITIONS

SN-01 & SN-01-R1 Process Solvent Emissions & R-1 Area R& D Facility

Source Description

This source accounts for all of the process solvent emissions due to the usage of VOC and acetone in the flare production process. All of the VOC and acetone used at the plant is eventually emitted to the atmosphere. Emissions occur primarily during the mixing and flare drying processes. It is assumed that all purchased VOC and acetone is emitted to the atmosphere.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #3. [Reg.19.501 *et seq.*, and 40 C.F.R. § 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
01	Process Solvents	VOC	112.5	225.0

2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions #3 and #4. [Reg.18.801, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Process Solvents	Acetone	N/A	350.0
		Total HAPs	N/A	9.50

3. The permittee will maintain monthly records of the amount of process solvents purchased each month. The permittee shall calculate the annual VOC emissions using a mass balance and shall assume all of the VOC received at the facility is emitted. These records shall be updated by the 15th day of the month following the month to which the records pertain. A rolling 12 month total and each individual month's data shall be kept on site and updated monthly, and be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311, and 40 C.F.R. Part 70.6]
4. The permittee will maintain monthly records of the amount acetone purchased each month. The permittee shall calculate the annual acetone emissions using a mass balance

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

and shall assume all of the acetone received at the facility is emitted. These records shall be updated by the 15th day of the month following the month to which the records pertain. A rolling 12 month total and each individual month's data shall be kept on site and updated monthly, and be made available to Department personnel upon request. This condition will monitor the acetone lost to the atmosphere by assuming that the amount of acetone purchased equals the amount of acetone emitted. A report of these records shall be submitted to the Department in accordance with General Provision #7. [Reg.18.1004 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

SN-02 (SN-02A, 02B, 02C)
Ordinance Testing

Source Description

Flares are tested in several areas of the main plant and the R-1 Facility. There are two tunnel testing areas and two ejection testing areas. These flare testing emission points are grouped as SN-02.

Specific Conditions

5. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #7. [Reg.19.501 *et seq.* and 40 C.F.R. § 52 Subpart E]

SN	Pollutant	lb/hr	tpy
SN-02	PM ₁₀	1.8	0.4
	SO ₂	0.1	0.1
	VOC	0.2	0.1
	CO	0.4	0.1
	NO _x	0.1	0.1

6. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #7. [Reg.18.801 and Ark. Code Ann.§ 8-4-203 as referenced by Ark. Code Ann.§ § 8-4-304 and 8-4-311]

SN	Pollutant	lb/hr	tpy
SN-02	PM	2.6	0.6
	Total HAPs	N/A	0.01

7. The permittee shall not test more than 40,000 pounds of ordinance material at SN-02 during any consecutive 12-month period. [Reg.19.705 Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
8. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #7. These records shall be updated by the 15th day of the month following the month to which the records pertain. A 12-month rolling total and each individual months data shall be maintained on-site and provided to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. § 52 Subpart E]
9. An exemption from the opacity limitation of Reg.19.503(B) has been granted by the ADEQ Director for this source. The operation of SN-02A through SN-02C shall be

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

conducted in such a manner as to cause no nuisance to the surrounding community. The Department reserves the right to rescind this exemption if, at any time, the emissions from the operations become a nuisance to the surrounding community. A copy of the approval letter for this exemption is included as Appendix A of this permit.

[Reg.19.505(B) and 40 C.F.R. § 52 Subpart E]

SN-03
Open Thermal Treatment Units (OTTUs) – R-15 Area

Source Description

The function of the R-15 facility is to dispose of explosives and explosives-contaminated wastes. The waste material is placed in four Open Thermal Treatment Units (OTTUs) and ignited. The OTTUs are grouped as SN-03.

Specific Conditions

10. The permittee shall not exceed the emission rates set forth in the following table. Scenario A will be followed until such a time that the facility's RCRA permit daily burn rate limits are changed. Once the RCRA permit has been modified, scenario B will be active. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions #12, #13 and #15. [Reg.19.501 *et seq.* and 40 C.F.R. Part 52, Subpart E]

Scenario	Pollutant	lb/hr	tpy
A	PM ₁₀	10.0	1.3
	SO ₂	0.1	0.1
	VOC	0.7	0.1
	CO	2.1	0.3
	NO _x	0.3	0.1
B	PM ₁₀	20.0	2.0
	SO ₂	0.1	0.1
	VOC	1.3	0.2
	CO	4.2	0.4
	NO _x	0.5	0.1

11. The permittee shall not exceed the emission rates set forth in the following table. Scenario A will be followed until such a time that the facility's RCRA permit daily burn rate limits are changed. Once the RCRA permit has been modified, scenario B will be active. The permittee shall demonstrate compliance with this condition by compliance with Specific Conditions #12, #13, and #15. [Reg.18.801, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Scenario	Pollutant	lb/hr	tpy
A	PM	14.0	1.9
	Total HAPs	N/A	0.01
B	PM	28.0	2.7
	Total HAPs	N/A	0.01

12. The permittee must operate under scenario A until such a time that the facility's RCRA permit is amended. To operate under the scenario B conditions, the permittee must keep proof of the finalized RCRA permit on file. Without such proof, the facility is subject to all scenario A limits. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by §§ -4-304 and 8-4-311, and 40 C.F.R. § 70.6]
13. While operating under scenario A, the permittee shall not burn more than 500 lbs. of wastes at SN-03 during any consecutive 24-hour period. While operating under scenario B, the permittee shall not burn more than 1000 lb of waste at SN-03 during any consecutive 24-hour period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
14. The permittee shall maintain daily records which demonstrate compliance with Specific Condition #13. These records shall be maintained on-site and shall be made available to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. Part 52 Subpart E]
15. While operating under scenario A, the permittee shall not burn more than 130,000 lb of wastes at SN-03 during any consecutive 12-month period. While operating under scenario B, the permittee shall not burn more than 192,000 lb of wastes at SN-03 during any consecutive 12-month period. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]
16. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition #15. These records shall be updated by the 15th day of the month following the month to which the records pertain. A 12-month rolling total and each individual month's data shall be maintained on-site and provided to Department personnel upon request. A report of these records shall be submitted to the Department in accordance with General Provision #7. [Reg.19.705 and 40 C.F.R. Part 52 Subpart E]
17. An exemption from the opacity limitation of Reg.19.503(B) has been granted by the ADEQ Director for this source. The operation of SN-03 shall be conducted in such a manner as to cause no nuisance to the surrounding community. The Department reserves the right to rescind this exemption if, at any time, the emissions from the operations become a nuisance to the surrounding community. A copy of the approval letter for this

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

exemption is included as Appendix A of this permit. [Reg.19.505(B) and 40 CFR Part 52 Subpart E]

SN-04
Natural Gas Fired Boilers

Source Description

The Natural Gas Fired Boilers are a group of boilers with a combined firing rate of 40.00 MMBtu/hr.

Specific Conditions

18. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #21, #22 and #23. [Reg.19.501 *et seq.* and 40 C.F.R. Part 52, Subpart E]

Pollutant	lb/hr	tpy
PM ₁₀	0.3	1.3
SO ₂	0.1	0.1
VOC	0.5	1.9
CO	3.3	14.5
NO _x	4.0	17.2

19. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Conditions #21, #22 and #23. [Reg.18.801, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Pollutant	lb/hr	tpy
PM	0.3	1.3
Total HAPs (products of natural gas combustion)	N/A	0.40

20. The permittee shall not cause to be discharged to the atmosphere from the natural gas fired boilers gases which exhibit an opacity greater than 5%. The opacity shall be measured in accordance with EPA Reference Method 9 as found in 40 CFR 60 Appendix A. Compliance shall be demonstrated by only emitting products of combustion of natural gas in the Natural Gas Boilers (SN-04). [Reg.18.501 and Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]
21. The permittee shall not exceed a throughput of 40.0 MMBtu/hr of natural gas heat input for all equipment designated at SN-04. Compliance shall be demonstrated through

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

compliance with Specific Condition #22 . [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 70.6]

22. The permittee shall maintain an updated list of all equipment and associated firing rates designated under SN-04. The permittee shall update the list immediately after a change, keep records onsite and make the records available to Department personnel upon request. [Reg.19.705, Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311, and 40 C.F.R. Part 52, Subpart E]
23. The permittee shall not construct, reconstruct, install, or modify a natural gas fueled boiler that has a total heat input capacity greater than 10 MMBtu/hr input without submitting the appropriate application and obtaining the Department's prior approval. [Reg.19.304, Ark. Code Ann. § 8-4-203 as referenced by §§ 8-4-304 and 8-4-311]

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Armtec Countermeasures Co. will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

SECTION VI: PLANTWIDE CONDITIONS

1. The permittee shall notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Reg.19.704, 40 C.F.R. § 52 Subpart E, and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Reg.19.410(B) and 40 C.F.R. § 52 Subpart E]
3. The permittee must test any equipment scheduled for testing, unless otherwise stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) new equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) business days in advance of such test. The permittee shall submit the compliance test results to the Department within sixty (60) calendar days after completing the testing. [Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
4. The permittee must provide:
 - a. Sampling ports adequate for applicable test methods;
 - b. Safe sampling platforms;
 - c. Safe access to sampling platforms; and
 - d. Utilities for sampling and testing equipment.

[Reg.19.702 and/or Reg.18.1002 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Reg.19.303 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
6. This permit subsumes and incorporates all previously issued air permits for this facility. [Reg. 26 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Title VI Provisions

7. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 C.F.R. § 82 Subpart E]
 - a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to § 82.106.
 - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
 - c. The form of the label bearing the required warning must comply with the requirements pursuant to § 82.110.
 - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
8. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 C.F.R. § 82 Subpart F]
 - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
 - c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC like appliances must comply with record keeping requirements pursuant to § 82.166. (“MVAC like appliance” as defined at § 82.152)
 - e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
9. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 C.F.R. § 82 Subpart A, Production and Consumption Controls.
10. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 C.F.R. § 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart

Armtec Countermeasures Co.

Permit #: 1865-AOP-R8

AFIN: 07-00033

B does not include the air tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC 22 refrigerant.

11. The permittee can switch from any ozone depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 C.F.R. § 82 Subpart G.

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

SECTION VII: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and Regulation 19 Appendix A. Group B insignificant activities may be listed but are not required to be listed in permits. Insignificant activity emission determinations rely upon the information submitted by the permittee in an application dated November 21, 2016. [Reg.26.304 and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]

Description	Category
Misc. Coatings, Adhesives, and Inks Usage	A-13

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (Ark. Code Ann. § 8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [40 C.F.R. § 70.6(b)(2)]
2. This permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later. [40 C.F.R. § 70.6(a)(2) and Reg.26.701(B)]
3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Reg.26.406]
4. Where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 C.F.R. § 70.6(a)(1)(ii) and Reg.26.701(A)(2)]
5. The permittee must maintain the following records of monitoring information as required by this permit.
 - a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses performed;
 - c. The company or entity performing the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[40 C.F.R. § 70.6(a)(3)(ii)(A) and Reg.26.701(C)(2)]

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 C.F.R. § 70.6(a)(3)(ii)(B) and Reg.26.701(C)(2)(b)]
7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Reg.26.2 must certify all required reports. The permittee will send the reports to the address below:

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
5301 Northshore Drive
North Little Rock, AR 72118-5317

[40 C.F.R. § 70.6(a)(3)(iii)(A) and Reg.26.701(C)(3)(a)]

8. The permittee shall report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.
 - a. For all upset conditions (as defined in Reg.19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
 - i. The facility name and location;
 - ii. The process unit or emission source deviating from the permit limit;
 - iii. The permit limit, including the identification of pollutants, from which deviation occurs;
 - iv. The date and time the deviation started;
 - v. The duration of the deviation;
 - vi. The emissions during the deviation;
 - vii. The probable cause of such deviations;
 - viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future; and

ix. The name of the person submitting the report.

The permittee shall make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

- b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

[Reg.19.601, Reg.19.602, Reg.26.701(C)(3)(b), and 40 C.F.R. § 70.6(a)(3)(iii)(B)]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 C.F.R. § 70.6(a)(5), Reg.26.701(E), and Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. § 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 C.F.R. § 70.6(a)(6)(i) and Reg.26.701(F)(1)]
11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 C.F.R. § 70.6(a)(6)(ii) and Reg.26.701(F)(2)]
12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 C.F.R. § 70.6(a)(6)(iii) and Reg.26.701(F)(3)]
13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 C.F.R. § 70.6(a)(6)(iv) and Reg.26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 C.F.R. § 70.6(a)(6)(v) and Reg.26.701(F)(5)]
15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 C.F.R. § 70.6(a)(7) and Reg.26.701(G)]
16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 C.F.R. § 70.6(a)(8) and Reg.26.701(H)]
17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 C.F.R. § 70.6(a)(9)(i) and Reg.26.701(I)(1)]
18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 C.F.R. § 70.6(b) and Reg.26.702(A) and (B)]
19. Any document (including reports) required by this permit pursuant to 40 C.F.R. § 70 must contain a certification by a responsible official as defined in Reg.26.2. [40 C.F.R. § 70.6(c)(1) and Reg.26.703(A)]
20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 C.F.R. § 70.6(c)(2) and Reg.26.703(B)]
 - a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually. If the permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due on the first day of the second month after the end of the reporting period. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 C.F.R. § 70.6(c)(5) and Reg.26.703(E)(3)]
 - a. The identification of each term or condition of the permit that is the basis of the certification;
 - b. The compliance status;
 - c. Whether compliance was continuous or intermittent;
 - d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
 - e. Such other facts as the Department may require elsewhere in this permit or by § 114(a)(3) and § 504(b) of the Act.
22. Nothing in this permit will alter or affect the following: [Reg.26.704(C)]
 - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
 - b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
 - c. The applicable requirements of the acid rain program, consistent with § 408(a) of the Act; or
 - d. The ability of EPA to obtain information from a source pursuant to § 114 of the Act.
23. This permit authorizes only those pollutant emitting activities addressed in this permit. [Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311]
24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:
 - a. Such an extension does not violate a federal requirement;
 - b. The permittee demonstrates the need for the extension; and
 - c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Reg.18.314(A), Reg.19.416(A), Reg.26.1013(A), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:
- a. Such a request does not violate a federal requirement;
 - b. Such a request is temporary in nature;
 - c. Such a request will not result in a condition of air pollution;
 - d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
 - e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
 - f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Reg.18.314(B), Reg.19.416(B), Reg.26.1013(B), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:
- a. The request does not violate a federal requirement;
 - b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
 - c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Reg.18.314(C), Reg.19.416(C), Reg.26.1013(C), Ark. Code Ann. § 8-4-203 as referenced by Ark. Code Ann. §§ 8-4-304 and 8-4-311, and 40 C.F.R. § 52 Subpart E]

Appendix A

ADEQ

ARKANSAS
Department of Environmental Quality

July 17, 2002

Linda Mahon
Manager, Safety and Environmental
BAE Systems
Highland Industrial Park, P.O. Box 3297
East Camden, Arkansas 71701

Dear Ms. Mahon:

Pursuant to your request dated May 20, 2002, the Department agrees that it is not technically feasible for the ordnance testing sources (SN-02A - SN-02D) or the open thermal treatment units (SN-03) to comply with the 20% opacity limitation contained in §19.503(B)(2) of ADEQ Regulation 19.

This letter shall constitute approval of the petition to waive the opacity limits for SN-02 and SN-03. This approval is subject to the following requirements.

The facility shall at all times comply with the limitations of Specific Conditions #6, #11, and #13 of the Operating Air Permit. Non-compliance with any of these limits may result in the revocation of this approval.

The operation of SN-02 and SN-03 shall be conducted in such a manner as to cause no nuisance to the surrounding community. The Department reserves the right to rescind this authority if, at any time, the emissions from the operations become a nuisance to the surrounding community.

If you have any questions, please contact David Triplett, Engineer II, at (501) 682-0067.

Sincerely,



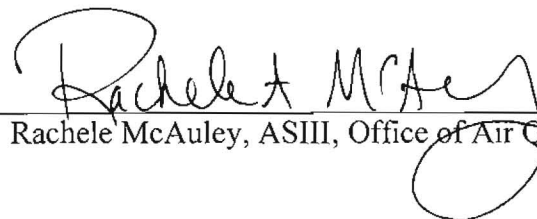
Marcus C. Devine
Director

DT

CERTIFICATE OF SERVICE

I, Rachele McAuley, hereby certify that a copy of this permit has been mailed by first class mail to Armtec Countermeasures Co., P.O. Box 3297, East Camden, AR, 71711, on this

4th day of May, 2017.



Rachele McAuley, ASIII, Office of Air Quality