

STATEMENT OF BASIS
for the issuance of Draft Air Permit # 1865-AOP-R4

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Armtec Countermeasures Arkansas Operations
Highland Industrial Park, Building M-25
East Camden, Arkansas 71701

3. PERMIT WRITER: Kimberly O'Guinn

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Explosive Manufacturing
NAICS Code: 325998

5. SUBMITTALS: August 2, 2007

6. REVIEWER'S NOTES:

Armtec Countermeasures Company (Armtec) is located at Building 25 in the Highland Industrial Park, East Camden, Calhoun County, Arkansas. Armtec manufactures and tests explosive ordnance and disposes of explosive/pyrotechnic wastes in open thermal treatment units. There are two separate facilities covered under this permit. The two facilities are referred to as the Main Plant and the R-1/R-15 Area.

This permit modification is for the addition of a blend area with a High Shear mixer (SN-01) at the R-1 facility. The current capacity requires personnel to make multiple mixes to obtain sufficient working quantities. The additional blend area with a larger mixer will directly reduce the usage of the smaller mixer. Throughput and permitted emission rates will remain the same.

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

7. COMPLIANCE STATUS:

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

There are no current or pending enforcement actions for this facility at this time.

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8. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera)	Y/N	N
Has this facility undergone PSD review in the past?	Y/N	N
Is this facility categorized as a major source for PSD?	Y/N	N
≥ 100 tpy and on the list of 28 (100 tpy)?	Y/N	N
≥ 250 tpy all other	Y/N	N

PSD Netting

Was netting performed to avoid PSD review in this permit?	Y/N	N
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If so, indicate increases and decreases used in netting for PSD purposes only.

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD <u>only</u>]
Facility	Hexane	NESHAP Subpart FFFF

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9. EMISSION CHANGES:

The following table summarizes plant wide emission changes associated with this permitting action.

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	Air Permit 1865-AOP-R3	Air Permit 1865-AOP-R4	Change
PM/PM ₁₀	97.5	97.5	0
SO ₂	0.1	0.1	0
VOC	225.4	225.4	0
CO	5.4	5.4	0
NO _x	15.0	15.0	0
Hexane	225.0	225.0	0
Hydrogen Fluoride	2.93	2.93	0
Fluorine	0.07	0.07	0
Acetone	346.50	346.50	0

10. MODELING:

Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu\text{g}/\text{m}^3$)	Averaging Time	*Highest Concentration ($\mu\text{g}/\text{m}^3$)	% of NAAQS
PM ₁₀ (02A & 02B)	91.2	50	Annual	12.55	25%
		150	24-hour	87.25	58%
PM ₁₀ SN-O2C & SN-03	581.4	50	Annual	10.09	20%
		150	24-hour	91.86	61%

* Background Concentrations are not included.

11. Non-Criteria Pollutants

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department deemed PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
Hexane	176.23	19.3875	112.50	No
HF	2.455	0.27	20.02	No
Acetone	1187.11	130.58	173.25	No
F	1.55	0.17	1.82	No

2nd Tier Screening (PAIL)

ISCST3 air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound was deemed by the Department to be one one-hundredth of the Threshold Limit Value, as listed by the ACGIH.

Pollutant	(PAIL, $\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Hexane	1762.3	1185.8	Yes
HF (02A & 02B)	24.55	1.89	Yes
HF (02C & 03)	24.55	3.56	Yes
Fluorine (02A & 02B)	15.5	0.032	Yes
Fluorine (02C & 03)	12.5	3.09	Yes
Acetone	11,871.1	5,511.24	Yes

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12. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type	Control Equipment Efficiency	Comments
01	Mass Balance	N/A	None		Uncontrolled solvent emissions. Assumes that 100% of hexane/acetone used at the facility is emitted to the atmosphere
02	Mass Balance	N/A	None		Facility performed mass balance calculation to determine component emissions per lb of flare material burned
03	Mass Balance	N/A	None		Facility performed mass balance calculation to determine component emissions per lb of flare material burned
04	AP-42	(lb/10 ⁶ scf) NOx: 94 CO: 40 SO ₂ : 0.6 PM ₁₀ : 7.6 VOC: 5.5	None		-

13. TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

There are no testing requirements for this permit.

14. MONITORING OR CEMS

The permittee must monitor the following parameters with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and the need for records included in any annual, semiannual or other reports.

There are no monitoring requirements for this permit.

15. RECORD KEEPING REQUIREMENTS

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
01	Hexane Purchased	9.50 tpy	Monthly	Y
01	Acetone Purchased	346.50 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

* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

** Indicates whether the item needs to be included in reports

16. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
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

17. DELETED CONDITIONS:

The previous permit contained the following deleted Specific Conditions.

Former SC	Justification for removal
19	40 CFR Part 63, Subpart DDDDD was vacated effective June 8, 2007

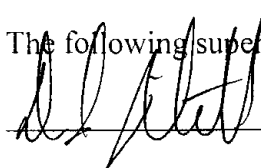
18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

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

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19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:



David Triplett, P.E.

