

## STATEMENT OF BASIS

For the issuance of Air Permit # 1272-AR-12 AFIN: 43-00024

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Remington Arms Company, LLC.  
2592 Arkansas Highway 15 North  
Lonoke, Arkansas 72086

3. PERMIT WRITER:

Andrea Sandage

4. NAICS DESCRIPTION AND CODE:

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

5. SUBMITTALS:

4/25/2014

6. REVIEWER'S NOTES:

Remington manufactures centerfire and rimfire cartridges, shotshells and primers. This permitting action is necessary to:

- Add three Centerfire lines (SN-61A/B/C, SN-62 A/B/C, SN-63 A/B/C) that will be located in a new building. Three small boilers are added for comfort heating. Annual VOC emissions associated with SN-XX will increase due to increased cleaning and maintenance of equipment.
- Combine emissions for SN-02A, SN-11, SN-12, and SN-60A due to completion of the combined stack at baghouse SN-02A.

The total permitted annual emission rate changes associated with this modification include increases of: 0.3 tons per year (tpy) PM/PM<sub>10</sub>, and 17.4 tpy VOC and decreases of: 0.10407 tpy lead, and 0.001038 tpy antimony.

Permanent Notes

Remington is not subject to 40 CFR 63 Subpart X because the facility does not contain any smelting operations.

Rotary Furnace SN-30 is not subject to 40 CFR 60, Subpart DDDD because the unit is not an incinerator (the flame does not directly impinge on the defective primed shell casings) and the Rotary Furnace is not combusting a solid waste, but is rendering it more amenable to ultimate recycling.

7. COMPLIANCE STATUS:

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

The last inspection conducted on September 10, 2013 showed the facility to be non-compliant with keeping records of RICE operation classification (Specific Condition #21 of Permit #1272-AR-10) and submittal of a notification of compliance status report (Specific Condition #22 of Permit #1272-AR-10). There are currently no open CAOs for this facility.

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  $\geq 100$  tpy and on the list of 28 or single pollutant  $\geq 250$  tpy and not on list, or*
- *CO<sub>2</sub>e potential to emit  $\geq 100,000$  tpy and  $\geq 100$  tpy/ $\geq 250$  tpy of combined GHGs?*

If yes, explain why this permit modification is not PSD. N/A

9. GHG STATUS:

Indicate one:

- Facility is classified as a major source for GHG and the permit includes this designation
- Facility does not have the physical potential to be a major GHG source
- Facility has restrictions on GHG or throughput rates that limit facility to a minor GHG source. Describe these restrictions: \_\_\_\_\_

10. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-03, SN-04	VOC	40 CFR 63, Subpart T, <i>National Emission Standards for Halogenated Solvent Cleaning.</i>
SN-48, SN-49, SN-50, SN-51, SN-52, SN-53, SN-54, SN-55, SN-56, and SN-57	Formaldehyde	40 CFR 63, Subpart ZZZZ - <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>
58	Ni	40 CFR 63, Subpart WWWW - <i>National Emissions Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations</i>

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. NAAQS EVALUATIONS AND NON-CRITERIA POLLUTANTS:

a) NAAQS:

The results of dispersion modeling are summarized below.

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 <sub>10</sub>	N/A	150	24-Hour	N/A	N/A
SO <sub>2</sub>	N/A	80	Annual	N/A	N/A
		1300	3-Hour	N/A	N/A
		365	24-Hour	N/A	N/A
CO	N/A	10,000	8-Hour	N/A	N/A
		40,000	1-Hour	N/A	N/A
NO <sub>x</sub>	N/A	100	Annual	N/A	N/A

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
*Pb	0.18515	0.15	Rolling 3-month Period over 3 years (not to be exceeded in any 3 month period)	0.144	96.0

\*Lead was the only pollutant that was evaluated for this permitting action (1272-AR-12).

b) Non-Criteria Pollutants:

1<sup>st</sup> Tier Screening (PAER)

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

Pollutant	TLV ( $\text{mg}/\text{m}^3$ )	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Arsenic	0.01	0.0011	0.001264	N
Antimony	0.5	0.055	0.025515	Y
Perchloroethylene	165.5	18.6	10.1	Y

\*Antimony was the only non-criteria pollutant that changed with 1272-AR-12; therefore, only this pollutant was evaluated for this permitting action.

2<sup>nd</sup> Tier Screening (PAIL)

AERMOD 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 has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH. Refined modeling was performed for Arsenic using 2005—2009 MET data, which included Airminute values. The 2<sup>nd</sup> high value was selected as per the Modeling Protocol.

Pollutant	PAIL ( $\mu\text{g}/\text{m}^3$ ) = 1/100 of Threshold Limit Value	Modeled Concentration ( $\mu\text{g}/\text{m}^3$ )	Pass?
Arsenic	0.10	0.00817	Y

## 13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3 Lead—stack testing	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup> Lead-0.001 lb/hr Antimony=1% of Pb			2.1 MM BTU/hr Pb stack test=0.000741 lb/hr
02A	Stack Test	Lead=0.007891 lb/hr Antimony=1% of Pb	Baghouse	99%	
02B	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -7.6 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-84.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			2 burners @0.75 MM BTU/hr each
03-04	Based on throughput limit	SN-03-2.0 lb/hr SN-04-8.1 lb/hr Sources Bubbled			19,800 lb/hr limit on Perchloro ethylene
05	Historical Stack Testing of similar source, SN-11 for lead	Lead-0.031 lb/hr Antimony-0.0003 lb/hr	Rotoclone		Rotoclone controls emissions from 3 tumblers
06	October 2012 Stack Test for Lead	Lead-0.00055 lb/hr Antimony-0.0000055 lb/hr (1% of lead)			Common exhaust for bullet groover & shaker
07	Maximum VOC emission rate taken to be 5X the average.	VOC = 8.0 lb/hr (5X average)			7.0 tons/yr total of lacquer thinner, heptane, lacquer, and Black Asphaltum
08, 09	Deleted sources				

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
10	Emissions based on mass balance	VOC = 3.2 lb/hr			17,100 lb/year limit
11	Stack Test	Lead = 0.031332 lb/hr Antimony = 1% of Pb	Baghouse	99%	Tested at 7000 lb/hr proc. Rate
12	Stack Test	Lead = 0.000162 lb/hr Antimony = 1% Pb	Baghouse	99%	Tested at 3500 lb/hr proc. Rate
13	VOC emissions based on volatility of Oakite and Cobratec 99 (benzotriazole)	VOC = 0.001 lb/hr			
14	VOC emissions based on volatility of Oakite and Cobratec 99 (benzotriazole)	VOC = 0.001 lb/hr			
15	Based on previous permitting experience of ECCI personnel, the review of emissions inventories of similar extrusion facilities, and vendor information, the emissions associated with extrusion are negligible	VOC = 0.01 lb/hr			
16	Deleted Source				

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
17	Stack testing for lead	PM/PM <sub>10</sub> -0.001 lb/hr Lead-0.005 lb/hr Antimony-0.0003 lb/hr Arsenic-0.0001 lb/hr Pb is 1.2% arsenic & 5.2% antimony			Tested at a proc. rate of 8,122 lb/hr
18	permit at the same rate as the tested emissions of the Shot Tower Drop Tube (SN-17)	PM/PM <sub>10</sub> -0.001 lb/hr Lead-0.005 lb/hr Antimony-0.0003 lb/hr Arsenic-0.0001 lb/hr Pb is 1.2% arsenic & 5.2% antimony			
19	permit at the same rate as the tested emissions of the Shot Tower Drop Tube (SN-17)	PM/PM <sub>10</sub> -0.001 lb/hr Lead-0.005 lb/hr Antimony-0.0003 lb/hr Arsenic-0.0001 lb/hr Pb is 1.2% arsenic & 5.2% antimony			
20	Stack tested for lead	PM/PM <sub>10</sub> -0.1 lb/hr Lead-0.035 lb/hr Antimony-0.002 lb/hr Arsenic-0.0004 lb/hr Pb is 1.2% arsenic & 5.2% antimony			Tested at proc. Rate of 8122 lb/hr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
21	Emissions from paint booth calculated by mass balance	Total VOC-0.141 lb/hr Acetone-0.088 lb/hr Methylene Chloride-0.018 lb/hr			Based on throughput of 3000 lbs/yr Paint typically 25% acetone, 25% MEK, 10% toluene, 5% Methylene Chloride, 5% Butyl Alcohol
22	Remington uses the results from the Function and Casualty Booth (SN-24)	PM/PM <sub>10</sub> -0.1 lb/hr Lead-0.001 lb/hr Antimony-0.000052 lb/hr Arsenic 0.000012 lb/hr			Lead is 1.2% Arsenic and 5.2% Antimony
23	SN-23 is reasonably similar to the Ballistics Range (SN-25) that has been tested at 0.006 lbs/hr. Remington has historically permitted SN-23 at 0.008 lbs/hr	PM/PM <sub>10</sub> -0.1 lb/hr- Lead-0.008 lb/hr- Antimony-0.00042 lb/hr Arsenic-0.0001 lb/hr			
24	Emissions have been stack tested for Lead	PM/PM <sub>10</sub> -0.1 lb/hr- Lead-0.001 lb/hr Antimony-0.000052 lb/hr Arsenic-0.000012 lb/hr			Lead is 1.2% Arsenic and 5.2% Antimony
25	Stack testing for lead	Lb/hr PM/PM <sub>10</sub> -0.1 Lead-0.006 Antimony-0.000312 Arsenic-0.000072	Rotoclone		Lead is 1.2% Arsenic and 5.2% Antimony



SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
26	Stack testing for lead	Lb/hr PM/PM <sub>10</sub> -0.1 Lead-0.003 Antimony- 0.000156 Arsenic- 0.000036	Rotoclone		Lead is 1.2% Arsenic and 5.2% Antimony
27, 28, 29	Stack testing for lead	Lb/hr PM/PM <sub>10</sub> -0.1 Lead-0.002 Antimony- 0.000104 Arsenic- 0.000024	Rotoclone (3 total)		Lead is 1.2% Arsenic and 5.2% Antimony
30	Fifth Edition of AP-42, Section 1.5, Liquefied Petroleum Gas Combustion, Table 1.5.2 Stack tested for Lead	Lb/1000 gal PM/PM <sub>10</sub> -0.6 SO <sub>2</sub> -0.018 NO <sub>x</sub> -19 CO-3.2 VOC-0.5 Lb/hr Lead-0.034 Antimony-0.019 PM/PM <sub>10</sub> -0.05	Multiclone	90%	4.0 MM Btu/hr burner Propane 43.8 gal/hr Lead contains 55% Antimony
31	Fifth Edition of AP-42, Section 1.5, Liquefied Petroleum Gas Combustion, Table 1.5.2 Stack tested for Lead, Antimony, Arsenic— prior to installation of baghouse	Lb/1000 gal PM/PM <sub>10</sub> -0.6 SO <sub>2</sub> -0.018 NO <sub>x</sub> -19 CO-3.2 VOC-0.5 Lb/hr—before baghouse Lead-0.235 Antimony-0.017 Arsenic-0.017 Lb/hr after baghouse efficiency Lead-0.012 Antimony-0.00085 Arsenic-0.0002	Baghouse	95%	Two propane fired melting pots with common stack 1.5 MM Btu/hr 16.4 gal/hr
32, 33	Sources deleted				

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
34	October 2012 Stack Test for NO <sub>x</sub>	32.1 lb/hr (117 lb/batch)	Wet counter flow scrubber	95% Based on EPA fact sheet "Air Pollution Control Tech. Fact Sheet, "EPA-452/F-03-015	175 ft <sup>3</sup> packing; annual NO <sub>x</sub> limit based on 730 batches per year.
35	Remington assumes emissions to be similar to those at SN-17, SN-18 and SN-19	Lb/hr PM/PM <sub>10</sub> -0.1 Lead-0.005 Antimony-0.00026 Arsenic-0.00006			Lead is 1.2% Arsenic and 5.2% Antimony
36	Similar in operation to the Ballistics Range (SN-25) due to the nature of handling and inspection (SN-25) has been tested	Lb/hr PM/PM <sub>10</sub> -0.1 Lead-0.006 Antimony-0.000312			
37	Source deleted				
38	Emissions calculated on mass balance	VOC-9.0 lb/hr			13,000 lb/yr annual limit
39	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			1.5MM Btu/hr NG fired
40	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			1.5MM Btu/hr NG fired

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
41	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			Eight annealing furnaces NG fired @ 0.665 MM Btu/hr each; total=5.32 MM Btu/hr
42	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			Ten mouth anneals NG fired @ 0.532 MM Btu/hr each; total = 5.32 MM Btu/hr
43	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			NG fired; 1.5 MM Btu/hr
44	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			Two NG Fired dryers @ 1.5 MM Btu/hr each; total = 3.0 MM Btu/hr
45	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			Boiler-NG fired 750 boiler HP, 25.11 MM Btu/hr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
46	Fifth Edition of AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4.1, 1.4.2, and 1.4.3	PM/PM <sub>10</sub> -12.0 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-21.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			Boiler-NG fired 750 boiler HP, 25.11 MM Btu/hr
47	VOC emissions determined by mass balance	VOC-1.2 Lb/hr			Limit is 5.0 tpy MEK; Primary emission is MEK (VOC) Formerly two sources (47 & 48) designated the printing; now, only one source, SN-47) designates this activity
48	Table 3.3-1 (Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines) from a guidance document on EPA's AP-42	Lb/hp-hr PM/PM <sub>10</sub> - 2.20 E-03 SO <sub>x</sub> -0.05 E-03 CO-6.68 E-03 NO <sub>x</sub> -0.031 VOC-0.015			380 HP 500 hrs/yr
49	Table 3.3-1 (Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines) from a guidance document on EPA's AP-42	Lb/hp-hr PM/PM <sub>10</sub> - 2.20 E-03 SO <sub>x</sub> -0.05 E-03 CO-6.68 E-03 NO <sub>x</sub> -0.031 VOC-0.015			380 HP 500 hrs/yr
50	Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel and All Stationary Dual-Fuel Engines) and Table 3.4-2 (Particulate and Particle-sizing Emission Factors for Large Uncontrolled Stationary Diesel Engines) from a guidance document on EPA's AP-42	Lb/hp-hr PM/PM <sub>10</sub> -0.0007 SO <sub>x</sub> -8.09 E-03 CO-5.5 E-03 NO <sub>x</sub> -0.024 VOC-7.05 E-04			830 HP diesel engine 500 hrs/yr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
51, 52, 53, 55, 56	AP-42 Table 3.2-1	Lb/MM Btu PM/PM <sub>10</sub> -0.034 SO <sub>2</sub> -5.88E-4 CO-0.386 NO <sub>x</sub> -3.17 VOC-0.12			Emissions based on 100 hrs/yr operation
54	AP-42 Table 3.3-1	PM/PM <sub>10</sub> -0.1 SO <sub>2</sub> -0.84 CO-0.99 NO <sub>x</sub> -1.63 VOC-3.1			Emissions based on 100 hrs/yr operation
57	Table 3.4-1 (Gaseous Emission Factors for Large Stationary Diesel and All Stationary Dual-Fuel Engines) from a guidance document on EPA's AP-42.	Lb/hp-hr PM/PM <sub>10</sub> -0.0007 SO <sub>x</sub> -8.09 E-03 CO-5.5 E-03 NO <sub>x</sub> -0.024 VOC-7.05 E-04			160 HP diesel Emissions based on 500 hrs/yr
58	Fifth Edition of AP-42, Section 12.20, Electroplating, Tables 12.20-4, Emission Factors for Electroplating—Other Metals Hourly nickel emission rate is based on the maximum amperage of the nickel tank rectifier of 1000 amps	6.7 grains/10 <sup>6</sup> dscf [AP-42] * 100 (grains/A-hr)/(grains/dscf)			
59	Fifth Edition of AP-42, Section 12.20, Electroplating, Tables 12.20-4, Emission Factors for Electroplating—Other Metals Hourly cyanide emission rate is based on the maximum amperage of the copper tank rectifier of 1000 amps	2.7 grains/10 <sup>6</sup> dscf [AP-42] * 100 (grains/A-hr)/(grains/dscf)*			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
XX	VOC based on mass balance	VOC = 11.0 lb/hr			48.4 tpy limit on usage
60A	Lead-stack testing of SN-01	Lead-0.000741 lb/hr Antimony=1% of Pb	Baghouse	99%	
60B	AP-42, Section 1.4, Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3	PM/PM <sub>10</sub> -7.6 lb/10 <sup>6</sup> ft <sup>3</sup> SO <sub>2</sub> -0.6 lb/10 <sup>6</sup> ft <sup>3</sup> NO <sub>x</sub> -100.0 lb/10 <sup>6</sup> ft <sup>3</sup> CO-84.0 lb/10 <sup>6</sup> ft <sup>3</sup> VOC-5.8 lb/10 <sup>6</sup> ft <sup>3</sup>			2 burners @ 2.1 MM BTU/hr each
61 A/B/C	Stack Test (SN-11)	PM/PM <sub>10</sub> /Lead 0.0017 gr/acf Antimony = 1% of Pb	Dust collector filter	99%	Baghouse filter flow = 354 cfh
62 A/B/C	VOC emissions determined by mass balance	6.71 lbs MEK/Gallon			MEK = 120 gal/mo MEK/VOC limit = 5.0 tpy
63 A/B/C	Stack Test (SN-11)	PM/PM <sub>10</sub> /Lead 0.0017 gr/acf Antimony = 1% of Pb	Dust collector filter	99%	Baghouse filter flow = 354 cfh

#### 14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
34	NO <sub>x</sub>	EPA Reference Method 7E	One Time	Regulation 19, §19.702 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-31
06, 35, 36	Lead	EPA Reference Method 12	One Time	[Regulation 19, §19.702, Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-31]

SN	Pollutants	Test Method	Test Interval	Justification
Combined stack for 02A, 11, 12, and 60A	Lead	EPA Reference Method 12	One Time	To confirm emission rate limits.
61 A/B/C 63 A/B/C	Lead	EPA Reference Method 12	One Time	To confirm emission rate limits.

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)
None				

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)
3, 4	Gallons of Perchloroethylene per rolling twelve-month period	1450	monthly	N
30	Tons of primed centerfire and rimfire shells or loaded rimfire cartridges mixed with rimfire shells processed	3000 tons per rolling twelve-month period	monthly	N
31	Tons of loaded pistol, rifle, rimfire, and shotshell rounds processed	2200 tons per rolling twelve month period	monthly	N
34	pH of scrubber liquor	10 minimum	monthly	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
34	Number of Batches	730 batches per rolling twelve-month period	Monthly	N
SN-07, SN-10, SN-13, SN-14, SN-21, SN-38, SN-47, and SN-XX, combined.	Tons of VOCs per rolling twelve-month period	81.3 tons	monthly	N
58	Wetting agent/fume suppressant concentration	As specified by Manufacturer	monthly	N
SN-48, SN-49, SN-50, SN-51, SN-52, SN-53, SN-54, SN-55, SN-56, and SN-57	Maintenance Conducted	N/A	As performed	N
	Hours of operation	100 hours/year maximum per unit for maintenance checks/readiness testing; 50 hrs/year/unit for non-emergency, but these hours counted in 100 hrs maximum above	Monthly	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
1, 2B,3/4, 5, 6, 7, 10, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 51, 52, 53, 54, 55, 56, 58, 59, 60B, 02A/11/12/60A combined stack, 61A/B/C, 62A/B/C, and 63A/B/C	5%	[Regulation No. 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]	Inspector Observation
30, 34, 48, 49, 50, & 57	20%	[Regulation No. 19 §19.503 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]	Inspector Observation



18. DELETED CONDITIONS:

Former SC	Justification for removal
16	The single stack configuration for SN-05, SN-11, and SN-12 was removed with this permit.
19	This condition was replaced with a condition to stack test the combined stack for SN-02A, SN-11, SN-12, and SN-60A.

19. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)						
		PM/PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs	
							Single	Total
Shotshell body flame treatment units (2.3MMBtu/hr)	A-1	0.1	0.1	0.1	1.0	1.0		
Shotshell body printers ( +1 tpy )	A-13	Negligible						
Closed containers (5 gallons or less )	A-8	No calculations needed						
6,000 gallon Sodium Hydroxide tank	A-4	No calculations needed						
Laboratory hood vents (3)	A-5						0.08	0.08
Shotshell body crimp waterproofing process	A-13			1.7			0.02	0.02
Pistol and revolver label printer and centerfire pistol and revolver label printer ( +1 tpy )	A-13	Negligible						
Centerfire Expansion Shell Wash/Dry (3)	A-13	0.09	0.01	0.09	0.88	1.01	0.02	0.02
Centerfire Expansion Boilers (0.75 MMBtu/hr each) (3)	A-1	0.09	0.01	0.09	0.84	1.01	0.02	0.02

Permit #: 1272-AR-12

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20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
1272-AR-11

## APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

## Fee Calculation for Minor Source

Revised 08-26-13

Remington Arms Company, LLC.

Permit #: 1272-AR-12

AFIN: 43-00024

			Old Permit		New Permit
\$/ton factor	23.42	Permit Predominant Air Contaminant	74.8		88.6
Minimum Fee \$	400	Net Predominant Air Contaminant Increase	13.8		
Minimum Initial Fee \$	500				
Check if Administrative Amendment	<input type="checkbox"/>	Permit Fee \$	400		
		Annual Chargeable Emissions (tpy)	88.6		

Pollutant (tpy)	Old Permit	New Permit	Change
PM	7.5	7.8	0.3
PM <sub>10</sub>	7.5	7.8	0.3
SO <sub>2</sub>	4.1	4.1	0
VOC	71.2	88.6	17.4
CO	27.5	27.5	0
NO <sub>x</sub>	74.8	74.8	0
Lead	0.92791	0.82384	-0.10407
Antimony	0.110088	0.10905	-0.001038
Arsenic	0.005656	0.005656	0
Cyanide	0.00017	0.00017	0
Methylene Chloride	0.08	0.08	0
Nickel	0.00042	0.00042	0
Perchloroethylene	9.9	9.9	0
Acetone	0.4	0.4	0