



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **032010-011** Project Number: 2010-01-024

Parent Company: Remington Arms Co., Inc.

Parent Company Address: Highway 13 and Roncelli Road, Lexington, MO 64067

Installation Name: Remington Arms Co., Inc.

Installation Number: 107-0004

Installation Address: Highway 13 and Roncelli Road, Lexington, MO 64067

Location Information: Lafayette County, S3, T51N, R27W

Application for Authority to Construct was made for:

The installation of a 0.38 MMBTU/hr controlled pyrolysis oven. This equipment was constructed prior to receipt of a permit from the Air Pollution Control Program. Obtaining this permit is part of a remedial enforcement action required by the Air Pollution Control Program. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

MAR 24 2010

EFFECTIVE DATE



DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Remington Arms Co., Inc.
Lafayette County (S3, T51N, R27W)

1. Operational Requirements for the Pyrolysis Cleaning Oven (EP8)
 - A. Remington Arms Co., Inc. shall use this pyrolysis cleaning oven (EP8) exclusively to remove non-chlorinated/non-hazardous coatings from metal parts.
 - B. Natural Gas shall be the only fuel burned in this oven.
 - C. Remington Arms Co., Inc. shall use a direct flame afterburner to control emissions from the burn-off oven. The afterburner shall be operated at a temperature greater than 1,500 degrees Fahrenheit with more than a one-half (1/2) second residence time to ensure a minimum combustion efficiency of 99.9%.
 - D. The oven shall be equipped with an electric controller, with digital readout, which is able to monitor and display the temperature in the second combustion chamber to an accuracy of plus or minus two percent (2%).

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2010-01-024
Installation ID Number: 107-0004
Permit Number:

Remington Arms Co., Inc.
Highway 13 and Roncelli Road
Lexington, MO 64067

Complete: January 12, 2010

Parent Company:
Remington Arms Co., Inc.
Highway 13 and Roncelli Road
Lexington, MO 64067

Lafayette County,

REVIEW SUMMARY

- Remington Arms Co., Inc. has applied for authority to construct a controlled 380,000 BTU/hr natural gas pyrolysis cleaning (burn-off) furnace for removing small amounts of cured coatings (i.e. stains, sealers, lacquers, etc.) from metal work holders.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment but in negligible amounts.
- None of the New Source Performance Standards (NSPS) apply to the installation. Subpart E, *Standards of Performance for Incinerators*, does not apply to this unit because this unit has a charging rate of less than 50 tons per day.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- A direct flame afterburner is being used to control the PM₁₀, VOC and HAPs emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of all regulated pollutants are below de minimis levels.
- This installation is located in Lafayette County, an attainment area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing are not required for the equipment as a condition of this permit.
- Remington Arms Co., Inc. must submit, within one (1) year after this permit is issued, a request to modify its Part 70 Operating Permit Renewal Application that is currently being processed by the Air Pollution Control Program.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Remington Arms Co., Inc. operates a wooden gunstock manufacturing facility in Lafayette County, Missouri. This facility was owned by S & K Industries, Inc. until purchased by Remington Arms Co., Inc. in September of 2009. The installation is a minor source for construction permits and a major source for operating permits. A Part 70 Operating Permit was issued to the installation in June, 2002 and a Part 70 Operating Permit Renewal Application was submitted by S & K Industries, Inc. in April, 2007 (Project 2007-04-139). A request to modify this Part 70 Operating Permit Renewal Application shall be submitted by Remington Arms Co., Inc. within a year after permit issuance.

The following construction permits have been issued to Remington Arms Co., Inc. from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
1089-006	Installation of a wood-fired boiler, a horizontal spray booth and three (3) spray paint booths.
0791-011	The permitting of an existing wooden gunstock manufacturing facility that was built prior to receiving a permit from the Air Pollution Control Program.
0792-036	Installation of four (4) dry filter spray paint booths.

PROJECT DESCRIPTION

In September, 2009, the installation started operations of a controlled pyrolysis cleaning furnace for removing small mounts of cured coatings from metal work holders. This equipment was constructed prior to receipt of a construction permit from the Air Pollution Control Program and obtaining this permit is part of a remedial enforcement action required by the Air Pollution Control Program.

The pyrolysis furnace has a maximum design rate of 380,000 BTU/hr, which includes both the primary burner and the afterburner. Metal parts are loaded into the furnace and heated to 700-900 degrees Fahrenheit by the primary burner, decomposing the cured coatings into smoke. The smoke is heated in the furnace secondary chamber (afterburner) with oxygen to 1,500-1,600 degrees Fahrenheit to convert burned-off wastes into carbon dioxide and water. Since the coatings from metal parts are burned off, this oven is classified as an incinerator. Therefore, a construction permit is required for this oven according to Missouri State Rules 10 CSR 10-6.061(1)(B). The oven will burn only natural gas as fuel.

EMISSIONS/CONTROLS EVALUATION

PM₁₀, NO_x, SO_x, CO and VOC emissions from the combustion of natural gas in the oven were calculated using emission rates determined through stack tests performed by the manufacturer on similar ovens. The manufacturer performed its stack tests with a coated metal part in the oven, but no information (i.e. composition, thickness, etc.) were given about the coatings. Therefore, it was assumed that all of the emissions are only from the combustion of natural gas. The control system on the oven automatically detects and monitors the smoke emissions from the metal parts to the afterburner and controls the processing rate at a maximum rate of 10 pounds per hour. PM₁₀, VOC and HAPs emissions from the burning off of the coatings were calculated by multiplying this processing rate by the percentage of solids, VOC and HAPs in the coatings and applying a 98% control efficiency for the afterburners.

The HAPs emissions from the combustion of natural gas in the oven were calculated using emission factors from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition, Section 1.4, *Natural Gas Combustion*. The total emissions from the oven are the sum of emissions from combustion and emissions from the burning off of the coatings.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	¹ Existing Potential Emissions	Existing Actual Emissions (2008 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	43.0	1.16	4.39	N/A
SO _x	40.0	N/D	0.01	0.008	N/A
NO _x	40.0	0.9	0.22	0.12	N/A
VOC	40.0	229.95	9.06	0.73	N/A
CO	100.0	14.80	2.00	0.22	N/A
HAPs	10.0/25.0	N/D	0.00	0.085	N/A

N/A = Not Applicable; N/D = Not Determined

Note 1: Existing potential emissions calculated by summing emissions from permits no. 1089-006, 0791-011 and 0792-036 and no permit required letter project no. 2000-08-047. The emissions are based on conditioned potential emissions.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below *de minimis* levels.

APPLICABLE REQUIREMENTS

Remington Arms Co., Inc. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Chia-Wei Young
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 22, 2009, received January 12, 2010, designating Remington Arms Co., Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Pollution Control Products Co. document *Notice to State Permitting Agencies - Dispersion Modeling Information*, dated 2/14/1997,
- Kansas City Regional Office Site Survey, dated January 20, 2010.

Mr. Gerald Helmer
Safety Manager
Remington Arms Co., Inc.
P.O. Box 529
Lexington, MO 64067

RE: New Source Review Permit - Project Number: 2010-01-024

Dear Mr. Helmer:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Chia-Wei Young, at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:cwyl

Enclosures

c: Kansas City Regional Office
PAMS File: 2010-01-024

Permit Number: