

PERMIT BOOK

STATE OF MISSOURI



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: 052011-013

Project Number: 2011-01-073
Installation Number: 009-0071

Parent Company: Arning Companies, Inc.

Parent Company Address: P.O. Box F, Cassville, MO 65625

Installation Name: Arning Companies, Inc.

Installation Address: 201 Industrial Park Place, Cassville, MO 65625

Location Information: Barry County, S31, T23N, R27W

Application for Authority to Construct was made for:

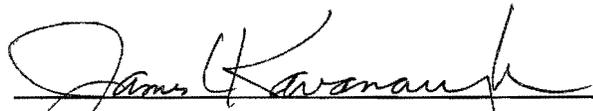
The installation of a fabrication and painting facility for awnings, walkway covers, and canopy systems. The fabrication shop will include welders and other metal working machinery. The paint shop operates one paint gun and the painting is not done within a paint booth. This permit was issued after the construction of the facility. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

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

MAY 31 2011

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 these air contaminant sources. 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 these air contaminant sources.

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 sources(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."

Arning Companies, Inc.
Barry County, S31, T23N, R27W

1. Emission Limitation
 - A. Arning Companies, Inc. shall emit less than 5.0 tons of the Hazardous Air Pollutant (HAP), Glycol Ether, in any consecutive 12-month period from the entire installation.
 - B. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 1.A.
2. Operational Requirement

Arning Companies, Inc. shall keep the paints and cleaning solutions in sealed containers whenever the materials are not in use. Arning Companies, Inc. shall provide and maintain suitable, easily read, permanent markings on all paints and cleaning solution containers used with this equipment.
3. Shipping and Receiving Limitation
 - A. Arning Companies, Inc. shall only receive forty (40) trucks per day for shipping and receiving.
 - B. Attachment B or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 3.A.
4. Record Keeping and Reporting Requirements
 - A. Arning Companies, Inc. shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used

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SPECIAL CONDITIONS:

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

- B. Arning Companies, Inc. shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

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

Project Number: 2011-01-073
Installation ID Number: 009-0071
Permit Number:

Arning Companies, Inc.
201 Industrial Park Place
Cassville, MO 65625

Complete: January 31, 2011

Parent Company:
Arning Companies, Inc.
P.O. Box F
Cassville, MO 65625

Barry County, S31, T23N, R27W

REVIEW SUMMARY

- Arning Companies, Inc. has applied for authority to install a fabrication and painting facility for awnings, walkway covers, and canopy systems. The fabrication shop will consist of 11 welding machines and other miscellaneous metal working stations. The paint shop only operates one paint gun during production.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs of concern from this process are Triethylamine (CAS# 121-44-8), Manganese (7439-96-5), Cobalt Compounds, and Glycol Ethers.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation.
- The National Emission Standards for Hazardous Air Pollutants Title 40 CFR 63 (MACT), Subpart HHHHHH, *Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources* does not apply to this facility because Arning Companies, Inc. does not emit any chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd) from their painting operation. The manganese emissions from this facility occur during the welding operations at the facility.
- No air pollution control equipment is being used in association with the new equipment.

- 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 conditioned below de minimis levels.
- This installation is located in Barry 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 conditioned below de minimis levels.
- Emissions testing is not required for the equipment.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

PROJECT DESCRIPTION

Arning Companies, Inc. is located in Cassville, Missouri and operates an existing design, production, manufacturing and installation facility of awnings, walkway covers, and canopy systems for the Gas Station & Convenience Store industry. Arning Companies, Inc. has never received a construction permit for their facility and will be considered a synthetic de minimis source under construction permitting. Arning Companies, Inc. will not be required to submit an operating permit application because their emissions are conditioned under the de minimis levels by this permit. If Arning Companies, Inc. modified their facility and caused an increase of emissions over the de minimis levels an operating permit application would be necessary.

Arning Companies, Inc. facility consists of fabricating shop and a painting shop. All processes at Arning Companies, Inc. except for the product shipping and receiving occur within a building enclosure. The building enclosure was given a 3.75% control efficiency. The paint shop does not use a paint booth and operates one Graco Model AA Series G15 paint gun. The Graco paint gun has a maximum application rating of 7.78 gallons per hour. It has been communicated to the permit review engineer for this project that Arning Companies, Inc. intends to install a paint booth at some time in the near future. This permit review and the new paint booth permit review could be considered one project if the application for authority to construct for the new paint is received within two years of the issuance date of this permit. The only emissions from the fabricating shop come from the welding process. Arning Companies, Inc. uses a gas metal arc welding (GMAW) method with the electrode classification being ER70S-6. There are eleven welders in the fabricating shop. It was estimated that each welder operate 20 minutes per hour with a welding wire discharge rate of 65 feet per minute.

Using those maximum welding usage numbers it was calculated that the maximum hourly usage of the welding wire during product fabrication to be 46 pounds of the ER70S-6 wire per hour.

EMISSIONS/CONTROLS EVALUATION

The emissions from the painting station at the Arning facility were calculated using a mass balance approach. The percent solids by weight used in the mass balance was calculated by taking the total density of the paint and subtracting the VOC content. A transfer efficiency of 75 % was used for the Graco paint gun. The particulate matter particle size distribution for the paint was obtained from the California Emission Inventory and Reporting System document for surface coating using water based paint. The painting station was also given a 3.75% control efficiency of particulate matter for the building enclosure. The welding and haul road emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, 13.2.2 (November 2006) and 12.19 (January 1995). Manganese emissions are also expected from the welding process these emissions were calculated using the Welding Operation document that is used to calculate toxic air contaminants released during welding based on the concentration of the substance in the welding wire. Potential emissions of the application represent the potential of the equipment, assuming continuous operation (8760 hours per year.) Because the haul road potential emissions at 8,760 hours of operation were causing Arning Companies, Inc. to exceed the de minimus levels for PM₁₀, Arning Companies, Inc. agreed to take a days per week and hours per day limit in the special conditions. The potential emissions of the haul roads were calculated at 3,120 hours of operation due to the limit. The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> / SMAL Levels	Existing Potential Emissions	Existing Actual Emissions	^b Potential Emissions of the Application	^c New Installation Conditioned Potential Emissions
PM _{2.5}	10.0	N/A	N/A	45.90	5.37
PM ₁₀	15.0	N/A	N/A	54.31	9.95
SO _x	40.0	N/A	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	92.01	10.38
CO	100.0	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	48.39	5.46
Triethylamine	10.0 ^a	N/A	N/A	3.69	0.42
Cobalt Compounds	0.1 ^a	N/A	N/A	0.37	0.04
Glycol Ethers	5.0 ^a	N/A	N/A	44.33	<5.0
Manganese	0.8 ^a	N/A	N/A	0.014	0.014

N/A = Not Applicable

^a Screening Model Action Level (SMAL)

^b The Potential Emissions of the Application are based on Arning Companies, Inc. applying the worst case paint to their products for 8760 hours of operation.

^c New Installation Conditioned Potential Emissions was based on a voluntary limit of 5.0 tons of Glycol Ethers per year. The New Installation Conditioned Potential Emissions represent the welding emissions at 8760 hours of operations, the haul road potential emissions at 3,120 hours of operation due the Special Condition 3 and the paint potential emissions limited to 5.0 tons of Glycol Ethers per year in order to show compliance with Special Condition 1.A. All other painting potential emissions are proportional reduced

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 conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Arning Companies, 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.

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 April 1 for a hard copy submittal or May 1 for online submittal for the previous year's emissions.

- *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 10-6.165

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.

Gerad Fox
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated January 25, 2011, received January 31, 2011, designating Arning Companies, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Welding Operations document dated February 1, 1993, last updated October 16, 1998.

Attachment B – Truck Receiving and Shipping

40 trucks indicates compliance.

Mr. Stacey Jaques
Production Manager
Arning Companies, Inc.
P.O. Box F
Cassville, MO 65625

RE: New Source Review Permit - Project Number: 2011-01-073

Dear Mr. Jaques:

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 and your new source review permit application 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 Gerad Fox, at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:gfk

Enclosures

c: Southwest Regional Office
PAMS File: 2011-01-073

Permit Number: