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: 102007-016  Project Number: 2007-06-047

Parent Company: Redline Welding, LLC

Parent Company Address: 1884 State Rd. Z, Pevely, MO 63070

Installation Name: Redline Welding, LLC

Installation Address: 1884 State Rd. Z, Pevely, MO 63070

Location Information: Jefferson County, S13, T41, R5

Application for Authority to Construct was made for:
The construction of an abrasive blasting and painting operation. 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.

OCT 26 2007

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 devises shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located with 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 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.
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: Project Number: 2007-06-047

Parent Company: Redline Welding, LLC

Parent Company Address: 1884 State Rd. Z, Pevely, MO 63070

Installation Name: Redline Welding, LLC

Installation Address: 1884 State Rd. Z, Pevely, MO 63070

Location Information: Jefferson County, S13, T41, R5

Application for Authority to Construct was made for:
The construction of an abrasive blasting and painting operation. 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.

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 devises shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the department’s Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant sources(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located with 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 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.
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.”

Redline Welding, LLC  
Jefferson County, S13, T41, R5

1. Emission Limitation  
   A. Redline Welding, LLC shall emit less than 15 tons of particulate matter less than ten (10) microns in diameter (PM$_{10}$) in any consecutive 12 month period from the entire installation.

   B. Redline Welding, LLC shall maintain an accurate record of PM$_{10}$ emitted into the atmosphere from the entire installation. Attachment A or an equivalent form shall be used for this purpose. Redline Welding, LLC shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources’ personnel upon request.

   C. Redline Welding, LLC shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1.B indicate that the source exceeds the limitation of Special Condition Number 1.A.

2. Operation Restrictions  
   A. Redline Welding, LLC shall keep the paint and cleaning solutions in sealed containers whenever the materials are not in use. Redline Welding, LLC shall provide and maintain suitable, easily read, permanent markings on all paint and cleaning solution containers used with this equipment.

   B. Redline Welding, LLC shall not operate abrasive blasting equipment after sunset or before sunrise.
REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW
Project Number: 2007-06-047
Installation ID Number: FIPs/Plant#
Permit Number:

Redline Welding, LLC
1884 State Rd. Z
Pevely, MO 63070

Parent Company:
Redline Welding, LLC
1884 State Rd. Z
Pevely, MO 63070

Jefferson County, S13, T41, R5

REVIEW SUMMARY

• Redline Welding, LLC has applied for authority to construct an abrasive blasting and painting operation.

• Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment, but in insignificant quantities.

• None of the New Source Performance Standards (NSPS) apply to the proposed equipment.

• None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.

• 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 particulate matter less than ten (10) microns in aerodynamic diameter (PM$_{10}$) are above de minimis levels.

• This installation is located in Jefferson County, a nonattainment area for ozone (O$_3$) and an attainment area for all other criteria air pollutants.

• This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

• Ambient air quality modeling was not performed since potential emissions of the application are 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

Redline Welding, LLC operates an abrasive blasting and painting operation in Jefferson County, Missouri. A long-cycle blasting job lasts 16 work hours, which includes preparation and refinishing, and uses 3.7 tons of sand. Using these values, the maximum hourly design rate for abrasive blasting is 462.5 pounds (lbs) of sand per hour. Abrasive blasting is restricted to daylight hours. The paint booth is used in both the application and the open air drying process. The maximum hourly design rate for paint application is 0.26 gallons per hour. This rate is based on a maximum usage of 25 gallons of paint applied per 96-hour period. Redline Welding, LLC submitted a Material Safety Data Sheet (MSDS) for one paint. If additional paints will be used, Redline Welding, LLC must demonstrate that potential emissions of VOCs will be below de minimis levels or apply for a new permit. No permits have been issued to Redline Welding, LLC from the Air Pollution Control Program.

EMISSIONS/CONTROLS EVALUATION

The 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, Section 13.2.6 Abrasive Blasting (September, 1997). Emissions from the painting operation were calculated using a mass balance approach. Fifty percent transfer efficiency was assumed when calculating PM10 emissions. This efficiency was obtained from the Air Pollution Training Institute *Sources and Control of Volatile Organic Air Pollutants Student Manual*, Third Edition, table 5-7 Transfer Efficiencies For Different Spraying Methods and Surface Types. Operation of the abrasive blasting equipment is limited to daylight hours. Total annual daylight is estimated to be 4380 hours, based on an average daylight of 12 hours. The following table provides an emissions summary for this project.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Regulatory De Minimis Levels</th>
<th>Existing Potential Emissions</th>
<th>Existing Actual Emissions (year EQ)</th>
<th>Potential Emissions of the Application</th>
<th>New Installation Conditioned Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM10</td>
<td>15.0</td>
<td>N/A</td>
<td>N/A</td>
<td>15.93</td>
<td>&lt; 15</td>
</tr>
<tr>
<td>SOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>7.08</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.46</td>
<td>N/A</td>
</tr>
<tr>
<td>Glycol Ethers</td>
<td>10.0</td>
<td>N/A</td>
<td>N/A</td>
<td>0.46</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = Not Applicable; N/D = Not Determined
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 pollutant are below de minimis levels.

APPLICABLE REQUIREMENTS

Redline Welding, LLC 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 April 1 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 10-5.160

SPECIFIC REQUIREMENTS

- Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400

- Control of Emissions From Industrial Surface Coating Operations, 10 CSR 10-5.330
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.

Michael Mittermeyer
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 6/12/2007, received 6/13/2007, designating Redline Welding, LLC as the owner and operator of the installation.


- St. Louis Regional Office Site Survey, dated 6/27/07.

- Material Safety Data Sheets.

## Attachment A – PM$\textsubscript{10}$ Compliance Sheet

Redline Welding, LLC  
Jefferson County, S13, T41, R5  
Project Number: 2007-06-047  
Installation ID Number: FIPs/Plant#  
Permit Number: ________

This sheet covers the period from ___/___/___ to ___/___/___.

<table>
<thead>
<tr>
<th>Month</th>
<th>Sand Used (tons)</th>
<th>Sand Emission Factor (ton/ton)</th>
<th>$^1$Sand Emissions (tons)</th>
<th>Paint Used (gallon)</th>
<th>Paint Emission Factor (ton/gallon)</th>
<th>$^2$Paint Emissions (tons)</th>
<th>$^3$Total Emissions (tons)</th>
<th>$^4$12-Month Total Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>55.5</td>
<td>0.013</td>
<td>0.72</td>
<td>83.2</td>
<td>0.0012</td>
<td>0.10</td>
<td>0.82</td>
<td>11.04</td>
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<tr>
<td></td>
<td>0.013</td>
<td>0.0012</td>
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<td>0.0012</td>
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</tr>
</tbody>
</table>

Note 1: Multiply the Sand Used (tons) by the Sand Emission Factor (ton/ton)  
Note 2: Multiply the Paint Used (gallons) by the Paint Emission Factor (ton/gallon)  
Note 3: Add the Sand Emissions and Paint Emissions  
Note 4: Add the Total Emissions from the current month to the Total Emissions from the previous eleven months
Mr. David Edmond  
Owner  
Redline Welding, LLC  
1884 State Rd. Z  
Pevely, MO 63070  


Dear Mr. Edmond:

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 Mike Mittermeyer at the department’s Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or (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:mml

Enclosures

c: St. Louis Regional Office  
PAMS File 2007-06-047  

Permit Number: