



## 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: 032008 - 001 Project Number: 2007-11-029

Parent Company: Regal-Beloit Corporation

Parent Company Address: 200 State Street, Beloit, WI 53511

Installation Name: Regal-Beloit Electric Motors Group

Installation Address: 401 West Fremont Road, Lebanon, MO 65536

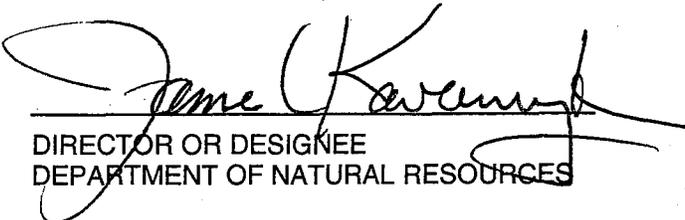
Location Information: Laclede County, S23, T34N, R16W

Application for Authority to Construct was made for: The addition of four (4) paint booths and a shot blaster, and the changing of fuel from propane to natural gas. 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.

MAR 5 2008

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 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 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."*

Regal-Beloit Electric Motors Group  
Laclede County, S23, T34N, R16W

1. **Superseding Conditions**  
This permit supersedes all special conditions in permit #1192-007 and #0199-028 from the Air Pollution Control Program.
2. **Volatile Organic Compounds (VOC) and Hazardous Air Pollutant (HAPs) Emissions Limitation**
  - A. Regal-Beloit Electric Motors Group shall emit less than 100 tons of Volatile Organic Compounds (VOC) from the installation in any consecutive 12-month period. The equipment at the installation is listed in Table 3.
  - B. Regal-Beloit Electric Motors Group shall emit less than ten (10) tons individually or twenty-five (25) tons combined of Hazardous Air Pollutants (HAPs) from the installation in any consecutive 12-month period. The equipment at the installation are listed in Table 3.
  - C. Attachment A, B and C, or equivalent forms, shall be used to demonstrate compliance with Special Conditions 2.A. and 2.B. Regal-Beloit Electric Motors Group shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used at the installation.
  - D. Regal-Beloit Electric Motors Group 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 2.C. indicate that the source exceeds the limitation of Special Conditions 2.A. and 2.B.
3. **Particulate Matter Less Than Ten Microns (PM<sub>10</sub>) Emission Limitation**
  - A. Regal-Beloit Electric Motors Group shall emit less than 15 tons of PM<sub>10</sub> in any consecutive 12 month period from the equipment listed in Table 1.

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**SPECIAL CONDITIONS:**

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

**Table 1: Equipment List for PM<sub>10</sub> Emissions Limit Compliance**

<b>Emission Point</b>	<b>Description</b>
EP1.1	Varnish Oven
EP6.1	Three (3) Dock Space Heaters
EP10.1	Hot Drop Furnace
EP17.1	Burn Off Oven
EP18.1	Aluminum Melt Furnace
EP21.1	Winding Connect Torches
EP23.1	Aluminum Melt Furnace
EP24.1	Aluminum Melt Furnace
EP26.1	Paint Dryer Oven
EP28.1	Aluminum Melt Furnace
EP30.1	Paint Drying Oven
EP31.1	Aluminum Melt Furnace
EP32.1	Two (2) Small Paint Spray Booth
EP33.1	Paint Booth
EP34.1	Paint Booth
EP35.1	Pangorn Shot Blaster

- B. Regal-Beloit Electric Motors Group shall maintain an accurate record of PM<sub>10</sub> emitted into the atmosphere from the equipment listed in Special Condition 3.A. Attachment D or equivalent form(s) shall be used for this purpose. Regal-Beloit Electric Motors Group 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. Regal-Beloit Electric Motors Group 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 3.B. indicate that the source exceeds the limitation of Special Condition 3.A.
4. Control Device – Baghouses
- A. Regal-Beloit Electric Motors Group shall control emissions from the shot blaster (EP35.1) using a baghouse as specified in the permit application.
  - B. The baghouse shall be operated and maintained in accordance with manufacturer's specifications. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance)

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### SPECIAL CONDITIONS:

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

- C. The baghouse shall be equipped with an automated monitoring system with indicator lights that light up when the baghouse is not operating properly and/or when maintenance is required.
- D. Regal-Beloit Electric Motors Group shall maintain an operating and maintenance log for the baghouses which shall include the following:
  - 1. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions,
  - 2. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.; and
  - 3. Any instance when the indicator lights required by Special Condition 4.C. lights up and any corrective or maintenance actions taken as a result.
- 5. **Process Requirement**  
Regal-Beloit Electric Motors Group shall only melt or process clean metal (aluminum) that contains no visible oil or other organic contaminant.
- 6. **Control Device – Paint Filters**
  - A. Regal-Beloit Electric Motors Group shall control emissions from paint booths (EP-32.1, EP-33.1, EP-34.1) using paint filters as specified in the permit application. The paint filter shall be in operation any time the paint booths are in operation.
  - B. The filters shall be operated and maintained in accordance with the manufacturer's specifications. Replacement filters shall be kept on hand at all times.
  - C. Regal-Beloit Electric Motors Group shall maintain an operating and maintenance log for the filters which shall include the following.
    - 1. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
    - 2. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

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

Project Number: 2007-11-029  
Installation ID Number: 105-0033  
Permit Number:

Regal-Beloit Electric Motors Group  
401 West Fremont Road  
Lebanon, MO 65536

Date Complete: November 8, 2007

Parent Company:  
Regal-Beloit Electric Motors Group  
200 State Street  
Beloit, WI 53511

Laclede County, S23, T34N, R16W

REVIEW SUMMARY

- Regal-Beloit Electric Motors Group has applied for authority to construct four (4) paint booths (EP32.1, EP33.1, EP34.1) and a shot blaster (EP35.1). The installation would also like to change fuel from propane to natural gas while keeping propane as backup fuel in case natural gas supply is disrupted.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. The HAPs of concern are HAPs from the combustion of natural gas and the operations of the paint booths.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- Subpart MM of the NSPS, *Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations*, does not apply to the installation because the installation does not assemble automobiles or light duty trucks.
- 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. Subpart MMMM, *National Emissions Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products*, of the MACT does not apply to this installation because the conditioned potential emissions of the installation are below major source levels.
- Paint filters will be used to control the PM<sub>10</sub> emissions from the paint booths. A Baghouse will be used to control PM<sub>10</sub> emissions from the shot blaster.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Conditioned potential emissions of PM<sub>10</sub> for this project are below the de minimis level. Unconditioned potential

emissions of NO<sub>x</sub>, SO<sub>x</sub>, CO, VOC, and HAPs for this project are below their de minimis levels.

- This installation is located in Laclede County, an attainment area for all 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 the potential emissions of PM<sub>10</sub> for the project are conditioned to below de minimis levels.
- Emissions testing is not required for the equipment.
- A modification to the Intermediate Operating Permit Application is required for this installation within a year of equipment startup.
- Approval of this permit is recommended with special conditions.

#### INSTALLATION DESCRIPTION

Regal-Beloit Corporation operates an electric motors manufacturing plant in Lebanon, Missouri. The installation is a minor source for construction permits. An intermediate operating permit (OP2003-012) was issued to the installation in 2003 and an intermediate operating permit renewal application (Project 2007-09-045) was received by the Air Pollution Control Program in September, 2007.

The following permits have been issued to Regal-Beloit Electric Motors Group from the Air Pollution Control Program.

**Table 2: Permits Issued to the Installation**

Permit Number	Description
1192-007	Installation of a paint booth
1095-019	Heat Cleaning Oven
0497-005	Die cast machine
1098-009	Installation of an incinerator
0199-028	Installation of two (2) paint booths and two (2) die casting machines
112001-017	Addition of a paint booth
122001-002	Installation of three (3) aluminum die casting machines, seven (7) aluminum melting furnaces and a coating operation.
092002-001	Addition of a 200 THT die caster and a 200 THT aluminum melt furnace
062004-018	Installation of a Schaefer propane-fired aluminum furnace

An NOV was issued in January, 2004 for violation of Missouri State Rules 10 CSR 10-6.065, *Operating Permits*.

With the issuance of this permit, the following equipment will be located at the site.

**Table 3: Installation Equipment List**

<b>Emission Points</b>	<b>Description</b>	<b>Permit Number</b>
EP1.1	Varnish Oven	Grandfathered
EP2.1	Two (2) Paint Booths and Two (2) Die Casting Machines	0199-028
EP3.1	Dry Arrestor Type Devilbliss Paint Booth	1192-007
EP4.1	Thirteen (13) Die Casters	0497-004, 0199-028, 122001-002, 092002-001, Five (5) are grandfathered
EP6.1	Three (3) Dock Space Heaters	No Permit Required
EP10.1	Hot Drop Furnace	No Permit Required
EP12.1	Steel Weld Booth	Grandfathered
EP13.1	Welding Booth	Replacement for Grandfathered Equipment
EP14.1	Welders	Grandfathered
EP17.1	Bayco Heat Cleaning Oven	1095-019
EP18.1	Propane Aluminum Furnace	Current Project
EP19.1	Electric Mold Repair Oven	No Permit Required
EP20.1	Wheelabrator Shot Blaster	Grandfathered
EP21.1	Winding Connect Torches	No Permit Required
EP23.1	Scheafer Aluminum Furnace	No Permit Required
EP24.1	Scheafer Aluminum Furnace	No Permit Required
EP25.1	Paint Booth (Lincoln Line)	112001-017
EP26.1	Three (3) Aluminum Furnaces	122001-002
EP28.1	Aluminum Melt Furnace	092002-001
EP29.1	Paint Booth	No Permit Required
EP30.1	Paint Drying Oven	No Permit Required
EP31.1	Aluminum Melt Furnace	062004-018
EP32.1	Two (2) Small Paint Spray Booth	Current Project
EP33.1	Paint Booth	Current Project
EP34.1	Paint Booth	Current Project
EP35.1	Pangorn Shot Blaster	Current Project

### PROJECT DESCRIPTION

Regal-Beloit Electric Motor Group proposes the following activities at its plant in Lebanon, Missouri.

- Installation of four (4) paint booths. Two of the paint booths (EP32.1) use spray cans to apply the paint. The combined maximum hourly design rate for the booths is calculated to be 0.041 gallons of paint per hour. The third paint booth (EP33.1) replaces the stator paint booth (EP16.1) and has a new stack. The third paint booth and the fourth paint booth (EP34.1) both have maximum hourly design rates of 0.45 gallons of paint per hour.
- The replacement of an existing aluminum melt furnace (EP18.1), rated at 1.232 MMBTU/hr and 0.250 tons/hr, with a new furnace, rated at 0.8 MMBTU/hr and 0.175 tons/hr.
- The addition of a shot blaster (EP35.1) with a maximum hourly design rate of 15,500 lbs of shot per hour.

- The changing of fuel from propane to natural gas. The facility would like to keep propane available as backup fuel in case the natural gas supply is disrupted.

The PM<sub>10</sub> emissions from all the paint booths will be controlled by paint filters (EP32.1, EP33.1, EP34.1). The PM<sub>10</sub> emissions from the shot blaster (EP35.1) will be controlled by a baghouse. The baghouse is equipped with an automated monitoring system that monitors the pressure drop of the baghouse. If the pressure drop rises above or drops below the normal range, an indicator light will light up and stay on until the problem is fixed. There are separate sensors and indicator lights for each type of problems or maintenance activities (i.e. filter rupture, filter plugged, service interval, etc.)

### EMISSIONS/CONTROLS EVALUATION

The changing of fuels will affect the following existing emission units: Varnish oven (EP1.1), dock space heaters (EP6.1), hot drop furnace (EP10.1), heat cleaning burnoff oven (EP17.1), aluminum melt furnaces (EP18.1, EP23.1, EP24.1, EP26.1, EP28.1, EP31.1), winding connect torches (EP21.1), and paint drying oven (EP30.1). The SO<sub>x</sub> emissions from these equipment are expected to increase because the sulfur content of the natural gas (0.0123%) is higher than the sulfur content of the propane (0.00002%). PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, and HAPs emissions are not expected to increase. However, all of the emissions are included as part of this project because each unit will be modified to accommodate the new fuel. The modifications will involve the use of new pressure regulators, flow orifices, and valves required to maintain the fuel/air ratio for proper combustion of natural gas.

All emissions from the combustion of natural gas were calculated using the maximum hourly design rates (MHDR) of the equipment and the emission factors from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Chapter 1.4, *Natural Gas Combustion (7/98)*. PM<sub>10</sub> emissions from the paint booth were calculated using the MHDR of the spray cans/guns, the solid percentage of the paint used (71.60% solids for small can spray booths EP32.1, 72.00 % solids for paint booth EP33.1, and 99.56 % solids for paint booth EP34.1), transfer efficiencies, and the paint filter capture and control efficiency. A transfer efficiency of 15% was used for the spray booths in accordance with EPA suggested values. The booths are enclosed on three (3) sides with a conveyor opening for motors to pass through on a roller conveyor. The tops of the booths are also covered. An 80% capture efficiency was used for the partial enclosure and a 99% device control efficiency was used for the paint filter. VOC and HAPs emissions from the paint booths were calculated using the VOC and HAPs content given in the Material Safety Data Sheet (MSDS) of the paint used and assuming that all of the VOC and HAPs evaporate. The emissions from the shot blaster were calculated using the MHDR of the blasters and emission factors from EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Chapter 13.2.6, *Abrasive Blasting*. Dust collectors will be used to control PM<sub>10</sub> emissions from the shot blaster. A 99% device control efficiency was used for the dust collectors. The blasting occurs in enclosures where the door will be shut before start of blasting so a 100% capture efficiency was used.

The MSDS does not list chromium (VI) as a component for any of the material used and the emissions evaluation was performed assuming that there are no chromium (VI). If the installation decides, in the future, to use materials containing chromium (VI), a new permit review will be required.

The current operating permit for this facility limits the VOC emissions to below 100 tons per year, individual HAPs to below 10.0 HAPs per year, and combined HAPs to below 25.0 tons per year for the entire installation. The company has asked to establish these same limits in this construction permit. With the issuance of this permit, the project-specific emission limits in permit #1192-007 and #0199-028 will be superseded by the installation-wide limits in this permit. Even though these limits are being included in the construction permit, an intermediate operating permit is still required for this installation.

**Table 1: Emissions Summary (tons per year)**

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2006 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	22.48	0.15	<15.00**	N/A
SO <sub>x</sub>	40.0	0.15	0.03	2.46	N/A
NO <sub>x</sub>	40.0	12.90	5.15	16.62	N/A
VOC	40.0	100.00*	5.69	8.08	<100.00**
CO	100.0	1.98	0.71	9.31	N/A
HAPs	10.0/25.0	10.0/25.0*	N/D	5.18	<10.0/25.0**

N/A = Not Applicable

\*The existing potential emissions of VOC and HAPs are from the limits in the operating permit.

\*\*The limit of 15.0 tons of PM<sub>10</sub> per year is for the equipment in this permit. It is not an installation-wide limit. The limits of 100.00 tons of VOC and 10.0/25.0 tons of HAPs are installation-wide limits.

### 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 PM<sub>10</sub> for the project is conditioned to below the de minimis level. The unconditioned potential emissions of all other pollutants for the project are below de minimis levels.

### APPLICABLE REQUIREMENTS

Regal-Beloit Electric Motors Group 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 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

## SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-3.060

## 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 11/7/2007, received 11/8/2007, designating Regal-Beloit Electric Motors Group as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southwest Regional Office Site Survey, dated 12/12/2007.







### Attachment D – PM<sub>10</sub> Compliance Worksheet

Regal-Beloit Electric Motors Group  
 Laclede County, S23, T34N, R16W  
 Project Number: 2007-11-029  
 Installation ID Number: 105-0033  
 Permit Number: \_\_\_\_\_

This sheet covers the month of \_\_\_\_\_

Emission Points	Description	<sup>1</sup> Monthly Throughput	<sup>2</sup> Emission Factor	<sup>3</sup> Total Monthly Emissions (tons/month)
1.1	Varnish Oven			
6.1	Dock Heaters			
10.1	Hot Drop Furnace			
17.1	Burn Off Oven			
18.1	Aluminum Melt Furnace			
21.1	Winding Connect Torches			
23.1	Aluminum Melt Furnace			
24.1	Aluminum Melt Furnace			
26.1	Paint Dryer Oven			
28.1	Aluminum Melt Furnace			
30.1	Paint Drying Oven			
31.1	Aluminum Melt Furnace			
32.1	Can Spray Paint Booths			
33.1	Paint Booth			
34.1	Paint Booth			
35.1	Pangorn Shot Blaster			
<b><sup>4</sup>Total Project Monthly PM<sub>10</sub> Emissions (tons) =</b>				
<b>Total Project Monthly PM<sub>10</sub> Emissions From This Month of Prior Year (tons) =</b>				
<b>Total (12-Month) Project PM<sub>10</sub> Emissions From Previous Month (tons) =</b>				
<b><sup>5</sup>Total Project Annual (12-Month) PM<sub>10</sub> Emissions (tons) =</b>				

**Notes**

- (1) Monthly throughputs (lbs) for evaporative sources are the amount of material used (gallons) multiplied by the density of the material (lbs/gallon). Monthly throughput for combustion sources are the amount of fuel used (mmscf or Mgal). Monthly throughput for the shotblaster is the amount of shots used (lbs)
- (2) Emission factors for evaporative sources are the PM<sub>10</sub> contents (%) in the MSDS for materials used. Emission factor for combustion sources is 5.5 lbs of PM<sub>10</sub>/mmscf of natural gas or 0.6 lbs of PM<sub>10</sub>/Mgal of propane (obtained from AP-42). Emission factor of the shot blaster is 13 lbs of PM<sub>10</sub>/1000 lbs of shot used. An 80% capture and 99% device control efficiency can be used to give a controlled emission factor for the shot blaster.
- (3) Total monthly emissions for evaporative sources are calculated by multiplying monthly throughput (lbs) by the emission factors (%) divided by 100. Total monthly emissions for combustion sources are calculated by multiplying monthly throughput (mmscf) by the emission factor (lbs/mmscf). Total monthly emissions for blasting are calculated by multiplying monthly throughput (lbs) by the emission factor (lbs/1000 lbs)
- (4) Total monthly emissions for the entire installation is calculated by summing the individual total monthly emissions.
- (5) Current 12-month facility-wide PM<sub>10</sub> emissions can be calculated as follows: *Annual PM<sub>10</sub> Emissions – [(Total Month Facility PM<sub>10</sub> Emissions for This month)+(Prior Month's Total Annual PM<sub>10</sub> Emissions)-(Total Monthly Facility PM<sub>10</sub> Emissions From Same Month of Prior Year)].* **A 12-Monthly Project PM<sub>10</sub> emissions of less than 15 tons indicate compliance.**

Mr. David Medley  
Regal-Beloit Electric Motor Group  
401 West Fremont Road  
Lebanon, MO 65536

RE: New Source Review Permit - Project Number: 2007-11-029

Dear Mr. Medley:

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 (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: Southwest Regional Office  
PAMS File: 2007-11-029

Permit Number: