



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

SEP 13 2019

Mr. Ganesh Krish
Johnson Controls Battery Group, LLC
4722 Pear Street
St. Joseph, MO 64501

RE: New Source Review Temporary Permit Request - Project Number: 2019-09-013
Installation ID Number: 021-0009
Expiration Date: November 13, 2019, or 30 days after start of repairs, which is sooner
Temporary Permit Number: **092019-003**

Dear Mr. Krish:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to use a temporary baghouse in lieu of the existing baghouse associated with EP-460. The Air Pollution Control Program is hereby granting your request to use the temporary baghouse at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3).

Per phone calls and an email submitted September 6, 2019, Johnson Controls Battery Group, LLC (Johnson Controls) is seeking to use a temporary baghouse while repairs to the Baghouse 13 is taking place. The purpose of the repairs is to provide assurance that the baghouse will continue to perform as originally designed. Repairs are anticipated to take a few days; however, Johnson Control has requested a total of 30 days of temporary baghouse operation in the event that unknown issues are discovered with other parts of the baghouse and additional time for repair is needed. Since the start date of the repairs is unknown, Johnson Controls is granted 30 days from the start date of repairs to complete the work with all work being completed no later than November 13, 2019.

Baghouse 13 is required by Special Condition 2 of Permit No. 042016-005A to control a variety of emission units as stated in the permit. In addition to the baghouse, the special condition requires the use of a secondary HEPA filter. For this temporary permit only, the use of secondary HEPA will not be required after the temporary baghouse for the following reasons. First, the temporary bags used in the temporary unit will consists of nano-fiber filters which Johnson Controls expects to have a higher control efficiency than those currently used in the permanent baghouse. Without testing, it is not known whether the temporary bags will be more efficient than the current baghouse / HEPA filter combination. However, it is important to note that Johnson Controls has added controls to extremely low emitting sources, even where these controls are not necessary to meet regulatory limits, in order to meet company goals.



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To support this, the permitted PM_{10} and lead grain loading for EP-460 is $1.25E-03$ and $2.98E-05$ grains per dry standard cubic foot (gr/dscf), respectively. However, the average uncontrolled PM and lead emission rate across multiple Johnson Control facilities for melt pots is $6.45E-04$ gr/dscf and $1.19E-04$ gr/dscf, respectively. This emission rate is believed to be representative of the baghouse inlet to Baghouse 13. As such, the uncontrolled rate for PM_{10} is already demonstrating compliance with the permit and therefore any control added by the baghouse will only further reduce emissions. With respect to the lead, the application of a modest control efficiency of 99% brings lead emissions after controls to $1.19 E-06$ gr/dscf which is also results in lead emissions below the permitted levels. Lastly, Baghouse 13 has a flowrate of 46,000 acfm compared to 40,000 acfm for the temporary unit which is a slightly lower flowrate then normal.

As the temporary baghouse is a high-performance baghouse and the expected emissions are not expected to exceed permitted levels, operation of the temporary baghouse is granted through October 13, 2019 without the use of a HEPA filter in order to make repairs to Baghouse 13.

Permission to conduct the operation of the temporary baghouse is granted with the following conditions:

1. All parts of Special Condition 2 of Permit No. 062017-005A shall be followed for the temporary baghouse with the exception of 2.D.
2. During operation of the temporary baghouse, Johnson Controls Battery Group, Inc. shall monitor and record the operating pressure drop across the baghouses at least once per 24-hour period while the plant is operating. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
3. The temporary baghouse will use nano-fiber filters.
4. This permit expires on November 13 or 30 days after startup of repairs on Baghouse 13, whichever occurs first. Johnson Controls Battery Group, Inc. shall notify the Compliance/Enforcement Section of the Air Pollution Control Program at AirComplianceReporting@dnr.mo.gov when the start and end of repairs have taken place.

You are still obligated to meet all applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. Specifically, you should avoid violating 10 CSR 10-6.045 *Open Burning Requirements*, 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.165 *Restriction of Emission of Odors*, and 10 CSR 10-6.170 *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*. In addition, *Standards of Performance for Lead-Acid Battery Manufacturing Plants*, 40 CFR 60 Subpart KK and *National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources*, 40 CFR 63 Subpart P continue to apply.

Mr. Ganesh Krish
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A copy of this letter should be kept with the unit and be made available to Department of Natural Resources' personnel upon request. If you have any questions regarding this determination, please do not hesitate to contact Michael Mittermeyer at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or by telephone at (573) 75 1-4817. Thank you for your time and attention to this matter.

Sincerely,
AIR POLLUTION CONTROL PROGRAM

A handwritten signature in black ink, appearing to read "Darcy A. Bybee". The signature is fluid and cursive, with a long horizontal stroke at the end.

Darcy A. Bybee
Director

DAB:sh a

c: PAMS File: 2019-09-013
Kansas City Regional Office
Chris Woods, Compliance / Enforcement Section