Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Eric R. Greitens, Governor
Carol S. Comer, Director

FEB 2 2 2018

Ms. Debra Probert
Plant Leader
Owens Corning Insulation Systems, LLC
1983 State Line Road
Joplin, MO 64804

RE: New Source Review Temporary Permit Request - Project Number: 2018-02-022

Installation ID Number: 097-0176
Expiration Date: March 1, 2019
Temporary Permit Number: 022018-006

Dear Ms. Probert:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to operate a temporary, portable, dry sorbent injection (DSI) system for the control of SO_2 and other pollutants from the cupola in place of the current injection system. The Air Pollution Control Program is hereby granting your request to conduct this temporary operation at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3).

Through conversations with Robin Edmiston-Bennett, Insulation Senior Environmental Leader of your organization, it is understood that the current DSI injection system is not operating as well as intended. The temporary system is needed until a permanent replacement can be installed. A skid/semi-trailer mounted system is proposed. A study will be conducted while the temporary system is operated in order to determine the permanent replacement. An insignificant increase in particulate matter emissions is expected associated with delivery and handling of the different sorbents. This temporary permit may provide crucial information towards setting final BACT limits.

Authorization of this temporary operation required analysis of previously issued permit requirements for DSI to check for conflicts specifically,

- Sorbent injection locations, permit 052016-003A, special condition 1.E.5)a). This requirement is temporarily superseded below.
- The requirement that sodium bicarbonate sorbent be milled, permit 052016-003A, special condition 1.E.5)c). This requirement is temporarily superseded below.
- Sorbent daily receiving limit, permit 052016-003C, part of special condition 13.A. This requirement is temporarily superseded below.
- Sorbent annual receiving limits, permit 052016-003, special condition 15.A. This

requirement is temporarily superseded below.

- Control the lime silo receiving and sodium bicarbonate silo receiving by using baghouses, permit 052016-003 special condition 15.B.2). This special condition remains in effect for all sorbents that are sent through those systems. Sorbents that are handled using the proposed temporary system are not affected by this special condition.

Please be aware the previously issued BACT emission limits, non-BACT emission limits, and other special conditions remain valid during this temporary permit. The BACT study protocol remains valid. The following new special conditions also apply during the temporary DSI operation,

1. The following special conditions are temporarily superseded:
   A. Permit 052016-003A special conditions 1.E.5)a) and 1.E.5)c)
   B. Permit 052016-003C special condition 13.A., but only the portion for "shared limit: lime, sodium bicarbonate, oxygen"
   C. Permit 052016-003 special condition 15.A.

2. No later than 90 days after the expiration date of this permit, the installation shall submit a project report to the Air Pollution Control Program Permits Section. The report shall include, but is not limited to the following,
   A. Specific sorbent types and trade names
   B. Amount of each sorbent used (tons)
   C. Sorbent moisture content as-injected (wt%)
   D. Sorbent particle size distribution (mean diameter (microns), wt% at 100 microns, 10 microns, and 2.5 microns)
   E. Injection dates, start times, and duration
   F. Injection locations
   G. Fuel and charge rate (tph), melt rate (tph)
   H. Fuel and charge sulfur content (wt%)
   I. Sorbent rates (lb/hr, lb/ lb sulfur introduced into cupola, lb/ton melt)
   J. Exhaust temperature where sorbent is injected
   K. Corresponding SO_2, sulfuric acid mist, and reduced sulfur compound emission rates (lb/hr and lb/ton melt) obtained by methods required in permit 052016-003 special condition 2.

End of special conditions

Please note that if the installation wishes to use data from this temporary operation to permit a future sorbent injection system, the following information should also be obtained:

- SO_2, sulfuric acid mist, and reduced sulfur compound control efficiencies
- Conclusions reached concerning the sorbent type, properties, injection methods, etc. that will correspond with final BACT limits for SO_2, sulfuric acid mist, and reduced sulfur compounds

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 10-6.260, *Restriction of Emission of Sulfur Compounds*
- 10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*
- 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*
- 10 CSR 10-6.170, *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*
- 40 CFR 63, Subpart DDD, *National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production*

A copy of this letter should be kept onsite 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 David Little 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

Darcy A. Bybee
Director

DAB:dlj

c: PAMS File: 2018-02-022
Southwest Regional Office