April 5, 2021

Glen Kelley  
General Manager  
Bodine Aluminum, Inc.  
100 Cherry Blossom Way  
Troy, MO 63379

RE: New Source Review Permit Amendment - Permit Number: 032012-006C  
Project Number: 2018-08-067; Installation Number: 113-0029

Dear Glen Kelley:

The Air Pollution Control Program has reviewed Bodine Aluminum, Inc.’s August 22, 2018 request to amend Construction Permit 032012-006B to reflect stack tested phenol emission rates exceeding the SMAL. This letter constitutes Construction Permit 032012-006C.

**Construction Permit 032012-006 Amendment C Discussion**

Construction Permit 032012-006 was issued March 16, 2012 for the modification of the existing installation to increase machine coolant capacity (M1) to 5000 gallons a year, reduce sand production (P5) to 58,500 tons a year, install DC-10 furnace a forced air media for High Pressure Die Cast (HPDC) castings, startup four idle HPDC machines, and replace the existing thermal oxidizer attached to the sand reclamation system with a regenerative thermal oxidizer.

Amendment A was issued October 28, 2013 to replace the required PM$_{10}$ and HAP minimum destruction efficiencies in the original permit with lb/hr emission rate limits on the RTO.

Amendment B was issued October 15, 2014 to remove the required VOC minimum destruction efficiency in the original permit.

Stack testing of the RTO was conducted in December 2014. The results indicated emissions below all of the lb/hr emission rate limits established in Amendment A, except for phenol.

The installation has conducted phenol modeling to demonstrate that the increased phenol emissions do not exceed the phenol Risk Assessment Level (RAL). The updated phenol emission factor was used in the installation’s most recent construction permit project, 2020-12-004, which determined that the installation is now an area HAP source.

The results of the phenol modeling analysis are provided in Table 1. As the project-only phenol modeling analysis was below 4% of the phenol RAL, installation-wide phenol modeling was not
performed. For additional phenol modeling information, please see “Ambient Air Quality Impact Analysis (AAQIA) for Bodine Aluminum, Inc.” (May 2018). An updated PTE for the installation is available in Project 2020-12-004 Table 6.

**Table 1: Phenol Modeling Results**

<table>
<thead>
<tr>
<th>Project Modeled Impact (µg/m³)</th>
<th>RAL (µg/m³)</th>
<th>4% of RAL (µg/m³)</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.101</td>
<td>45</td>
<td>1.8</td>
<td>24-hour</td>
</tr>
<tr>
<td>0.0163</td>
<td>9.5</td>
<td>0.38</td>
<td>Annual</td>
</tr>
</tbody>
</table>

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to §§ 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions regarding this amendment, please do not hesitate to contact Alana Hess, at the department’s Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
Permits Section Chief

KBH:aha

Enclosures

c: St. Louis Regional Office
PAMS File: 2018-08-067