DRAFT PERMIT TO CONSTRUCT
A POTENTIAL AIR CONTAMINANT SOURCE

ISSUED BY
KNOX COUNTY DEPARTMENT OF
AIR QUALITY MANAGEMENT
140 DAMERON AVENUE
KNOXVILLE, TN 37917

ISSUED TO: BAM Inc.

MAILING ADDRESS: 10536 Lexington Drive, Knoxville, TN 37932

CONSTRUCTION LOCATION: 10536 Lexington Drive, Knoxville, TN 37932

THIS IS TO CERTIFY THAT AN INSPECTION AND REVIEW OF THE PROPOSED CONSTRUCTION OF THE POTENTIAL AIR CONTAMINANT SOURCE AS DESCRIBED HEREIN HAS BEEN MADE AND THAT SAID CONSTRUCTION OF THE POTENTIAL AIR CONTAMINANT SOURCE IN OUR OPINION HAS BEEN FOUND TO BE IN COMPLIANCE WITH ALL KNOX COUNTY AIR QUALITY MANAGEMENT REGULATIONS AS PER ISSUANCE DATE. THE APPLICANT IS THEREFORE GRANTED, UNDER THE CONDITIONS DESCRIBED HEREIN, A PERMIT TO CONSTRUCT SAID POTENTIAL AIR CONTAMINANT SOURCE.

THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE STATE OF TENNESSEE AIR POLLUTION CONTROL REGULATIONS; PUBLIC CHAPTER NO. 367 AMENDED; PRIVATE CHAPTER NO. 37; AND SECTION 25 OF THE KNOX COUNTY AIR QUALITY MANAGEMENT REGULATIONS.

THIS PERMIT IS ISSUED SUBJECT TO THE ACCURACY OF ALL INFORMATION SUBMITTED RELATING TO THE PERMIT APPLICATION AND TO ANY CONDITIONS NOTED.

THIS PERMIT MAY BE REVOKED AT ANY TIME A VIOLATION OF THE KNOX COUNTY AIR QUALITY MANAGEMENT REGULATIONS OR THE TENNESSEE AIR POLLUTION CONTROL REGULATIONS, WHICHERVER IS APPLICABLE, OCCURS.

DATE PERMIT ISSUED: ___________________________ APPROVED BY: ___________________________

BRIAN RIVERA, P.E.
KNOX COUNTY DEPARTMENT OF
AIR QUALITY MANAGEMENT

THE CONDITIONS UNDER WHICH THIS POTENTIAL AIR CONTAMINANT SOURCE IS PERMITTED TO CONSTRUCT ARE LISTED ON THE FOLLOWING PAGE(S) OF THIS PERMIT.

THIS PERMIT OR A LEGIBLE PHOTOCOPY THEREOF SHALL BE KEPT ON-SITE AND BE READILY AVAILABLE FOR INSPECTION BY THE DEPARTMENT.
This construction permit is issued for the source(s) listed in the following table:

<table>
<thead>
<tr>
<th>Emission Unit #</th>
<th>Source(s)</th>
<th>Control(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-01</td>
<td>Alice S Furnace (PAN carbonization)</td>
<td>1.5 MMBtu/hr natural gas afterburner</td>
</tr>
</tbody>
</table>

A. GENERAL CONDITIONS

A1. The source(s) is permitted to construct subject to continuous compliance with Knox County Air Quality Management Regulations (KCAQMR) including, but not limited to the following:

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Applicable to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>Prohibitions or Air Pollution</td>
<td>Facility</td>
</tr>
<tr>
<td>16.0</td>
<td>Open Burning</td>
<td>Facility</td>
</tr>
<tr>
<td>17.0</td>
<td>Regulation of Visible Emissions</td>
<td>Facility</td>
</tr>
<tr>
<td>19.0</td>
<td>Regulation of Process Emissions</td>
<td>Emission unit 13-01</td>
</tr>
<tr>
<td>21.0</td>
<td>Regulation of Odors</td>
<td>Facility</td>
</tr>
<tr>
<td>22.0</td>
<td>Regulation of Fugitive Dust and Materials</td>
<td>Facility</td>
</tr>
<tr>
<td>24.0</td>
<td>Regulation of Airborne and Windborne Materials</td>
<td>Facility</td>
</tr>
<tr>
<td>25.0</td>
<td>Permits</td>
<td>Facility</td>
</tr>
<tr>
<td>26.0</td>
<td>Monitoring, Recording, and Reporting</td>
<td>Facility</td>
</tr>
<tr>
<td>31.0</td>
<td>Right of Entry</td>
<td>Facility</td>
</tr>
<tr>
<td>34.0</td>
<td>Malfunction of Equipment</td>
<td>Facility</td>
</tr>
</tbody>
</table>

A2. Visible emissions from any single source shall not exceed an opacity of 20 percent for a six (6) minute average, except opacity emissions from roads and parking areas. (KCAQMR Section 17.1)

A3. Emissions of CO from the facility, including exempted sources, shall not exceed 79.9 tons during any consecutive 12-month period. (KCAQMR Section 25.1-D)

A4. Emissions of any single hazardous air pollutant listed in Section 112(b) of the Clean Air Act from the facility, including exempted sources, shall not exceed 7.9 tons during any consecutive 12-month period. (KCAQMR Section 25.1-D)

A5. Total emissions of hazardous air pollutants listed in Section 112(b) of the Clean Air Act from the facility, including exempted sources, shall not exceed 19.9 tons during any consecutive 12-month period. (KCAQMR Section 25.1-D)

A6. Emissions of gases, vapors, or “objectionable” odors shall not be in sufficient quantities and of such characteristics and duration as to be injurious, or tend to be injurious, to human health and welfare, plant or animal life, or to property, or which unreasonably interferes with the enjoyment of life or property beyond the property line from which such emissions occur. (KCAQMR Section 21.1)

A7. The owner or operator shall maintain and repair the sources, including associated air pollution control equipment and monitoring equipment, as required to maintain and assure compliance with the emission limits of this permit. (KCAQMR Section 25.1-F and permit application)

A8. The owner or operator shall keep a monthly record of any maintenance or repairs performed on any source, including associated air pollution control equipment or monitoring equipment. The data must be entered into the record no later than 30 days from the end of the month for which the data is required. This record shall be kept on-site for at least five (5) years from the date of last entry and be readily available for inspection or submittal to the Department. (KCAQMR Section 26.5-B)

A9. In the event an ownership change occurs at the facility, written notification of the ownership change requesting a permit amendment shall be submitted to the Department no later than 30 days after the change occurs. This
Permit No. C-20-0525-13

notification must include an agreement to abide by the terms of the permit, Knox County Air Quality Management Regulations, and any documented agreements made by the previous owner to the Director. (KCAQMR Section 25.4-C)

A10. This permit is not transferable from one air contaminant source to another air contaminant source or from one location to another location. (KCAQMR Section 25.4-D)

A11. This permit shall become invalid if construction is not commenced within 18 months after receipt of this permit unless a permit extension request is approved. The permit extension request must be submitted in writing at least 30 days prior to the permit invalidation and state the reasons an extension is justified. (KCAQMR Section 25.1-C)

A12. The owner or operator shall apply for an operating permit within 14 days of initial startup of the source. Startup of the source shall be the date of the setting into operation of the source for the production of product for sale or use as raw materials or steam or heat. (KCAQMR Section 25.3-C.2)

A13. This permit shall serve as a temporary operating permit from the date of issuance to the receipt of an operating permit, provided that all the conditions of this permit are met. (KCAQMR Section 25.3-M)

B. SOURCE SPECIFIC CONDITIONS

B1. Alice 5 Furnace (Emission unit 13-01)

B1.1 Emissions of particulate matter (TSP) from emission unit 13-01 (Alice 5 furnace) shall not exceed 0.45 lb/hr. (KCAQMR Section 19.2-C)

B1.2 Emissions from emission unit 13-01 (Alice 5 furnace) exiting the associated afterburner shall not exceed the following emission limits:

<table>
<thead>
<tr>
<th>Emission Unit #</th>
<th>Source(s)</th>
<th>SO₂ (lb/hr)</th>
<th>CO (lb/hr)</th>
<th>NOₓ (lb/hr)</th>
<th>VOC (lb/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-01</td>
<td>Alice 5 Furnace (PAN carbonization)</td>
<td>0.00088</td>
<td>0.12</td>
<td>0.15</td>
<td>0.0081</td>
</tr>
</tbody>
</table>

These emission limits are based on AP 42 (Fifth Edition) Table 1.4-1 & 1.4-2 emission factors for small boilers (uncontrolled) and the maximum material inputs listed in the permit application. (KCAQMR Section 19.3-B)

B1.3 The input rate of PAN for emission unit 13-01 (Alice 5 furnace) shall not exceed 4,000 pounds during each cycle. This is the stated maximum capacity of the furnace listed in the permit application. (KCAQMR Section 25.1-F and permit application)

B1.4 The owner or operator shall only use natural gas as a fuel for the afterburner. (KCAQMR Section 25.1-F and permit application)

B1.5 The owner or operator shall not operate emission unit 13-01 (Alice 5 furnace) unless the associated afterburner is in operation. (KCAQMR Section 25.1-F and permit application)

B1.6 The owner or operator shall maintain the temperature in the afterburner at or above 1600 °F when emission unit 13-01 (Alice 5 furnace) is in operation. (KCAQMR Section 25.1-F and permit application)

B1.7 The owner or operator shall install, operate, and maintain a device to measure the temperature in the afterburner. (KCAQMR Section 26.5-A)

B1.8 The owner or operator shall keep a record of the number of cycles that emission unit 13-01 (Alice 5 furnace) is fired and the weight of material processed (initial and finished weights) during each cycle. The data must be entered into the record no later than seven (7) days from the end of the day for which the data is required. This
record shall be kept for at least five (5) years from the date of last entry and be readily available for inspection or submittal to the Department. (KCAQMR Section 26.5-B)

B1.9 The owner or operator shall keep an hourly record of the temperature in the afterburner during each cycle of emission unit 13-01 (Alice 5 furnace). The data must be entered into the record no later than seven (7) days from the end of the day for which the data is required. This record shall be kept for at least five (5) years from the date of last entry and be readily available for inspection or submittal to the Department. (KCAQMR Section 26.5-B)

C. REPORTING CONDITIONS

C1. An annual emission report, as prescribed by the Director, shall be submitted to the Department by March 31st of each year for the previous year (January 1st through December 31st) when the facility has actual emissions of 25 tons per year or greater of nitrogen oxides or volatile organic compounds. (KCAQMR Section 26.5-C.1)

C2. When a malfunction of equipment causes emissions in excess of any applicable emission limit, the owner or operator shall notify the Department within 24 hours of the malfunction and provide a statement giving all pertinent facts, including the duration of the malfunction. The owner or operator shall notify the Department when the malfunction has been corrected. (KCAQMR Section 34.0)