Certified Mail No.

Activity No.: PER20110004

Agency Interest No. 2093

Mr. Neil Sweet

Plant Manager

Bradken-Amite, Inc.

13040 Foulks Lane

Amite, LA 70422

RE: Part 70 Operating Permit Renewal, Bradken Ltd, Bradken-Amite, Inc.

Amite, Tangipahoa Parish, Louisiana

Dear Mr. Sweet:

This is to inform you that the permit renewal for the above referenced facility has been approved under LAC 33:III.501. The permit is both a state preconstruction and Part 70 Operating Permit. The submittal was approved on the basis of the emissions reported and the approval in no way guarantees the design scheme presented will be capable of controlling the emissions as to the types and quantities stated. A new application must be submitted if the reported emissions are exceeded after operations begin. The synopsis, data sheets and conditions are attached herewith.

It will be considered a violation of the permit if all proposed control measures and/or equipment are not installed and properly operated and maintained as specified in the application.

Operation of this facility is hereby authorized under the terms and conditions of this permit. This authorization shall expire at midnight on the \_\_\_\_ of \_\_\_\_ , 2017, unless a timely and complete renewal application has been submitted six months prior to expiration. Terms and conditions of this permit shall remain in effect until such time as the permitting authority takes final action on the application for permit renewal. The permit number and agency interest number cited above should be referenced in future correspondence regarding this facility.

Done this day of , 2012.

Permit No.: 2840-00032-V5

Sincerely,

Sanford L. Phillips

Assistant Secretary

SLP:KCW

c: EPA Region VI

# Background

Amite Foundry and Machine, Inc. (AFM) purchased an inactive steel foundry near Amite in 1993 and restarted operations. The site was formally known as DBR Foundry which ceased operations in the late 1980’s. AFM had its first Title V, Permit No. 2840-00032-V0, issued October 5, 1999. The renewal permit for Amite Foundry was Permit No. 2840-00032-V1 issued April 25, 2007. The owner name is Bradken Ltd. and the facility name is Bradken-Amite, Inc. Bradken-Amite, Inc is currently operating under permit number 2840-00032-V4 issued April 20, 2011.

This is the Part 70 operating permit renewal for the facility.

# Origin

A permit application and Emission Inventory Questionnaire were submitted by Bradken-Amite, Inc on October 8, 2011 requesting a Part 70 operating permit.

# Description

Bradken-Amite, Inc produces steel castings for sugar mill, automotive, shipping, railroad, and other industries. Two electric arc furnaces (EAFs) melt scrap steel. Melted metal is poured into chemically-bonded sand molds. Manufacturing operations include: core and mold making, metal pouring and cooling, casting shakeout and shot blasting, casting finishing (welding, grinding, cutting, and torching), casting machining, metal annealing operations, and minor painting (as required). Supplemental operations include pattern making and repair, quality assurance/quality control, x-ray, wastes handling, transportation, and maintenance operations.

This permit modification will add new production equipment and building space in order to expand the production rate of the Bradken Amite Foundry:

The two current Electric Arc Furnaces (EAF’s) have sufficient capacity to attain the post expansion project target production of 54,600 tpy of melted steel. However, the current facility does not have sufficient floor space needed to build the cores and molds and allow for the cooling of the poured metal. This modification will authorize the additional floor space.

To create the new molds, a larger sand silo, as well as a new sand reclamation and shakeout unit will also need to be added. Lastly, a new Heat Treat Oven will be added. These changes will allow the production of the EAF’s to increase, resulting in more actual emissions.

No modifications are being requested with this renewal.

Estimated emissions in tons per year are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Pollutant | Before | After | Change |
| PM10 | 12.28 | 12.28 | - |
| SO2 | 6.03 | 6.03 | - |
| NOX | 28.25 | 28.25 | - |
| CO | 188.59 | 188.59 | - |
| VOC | 59.57 | 59.57 | - |

| VOC LAC 33:III. Chapter 51 Toxic Air Pollutants (TAPs): | |
| --- | --- |
| Pollutant | Emissions (TPY) |
| Acetaldehyde | 0.14 |
| Acrolein | 0.18 |
| Benzene | 1.12 |
| Cresol | 1.17 |
| Dibutylphthalate | 0.01 |
| Ethylbenzene | 0.05 |
| Formaldehyde | 0.34 |
| Glycol Ethers | 0.01 |
| Methylenediphenyl diisocyanate | 0.17 |
| Methyl Ethyl Ketone | 0.01 |
| Naphthalene | 4.09 |
| n-Butyl Alcohol | 0.03 |
| N-Hexane | 0.30 |
| Phenol | 1.88 |
| Styrene | 0.02 |
| Toluene | 0.54 |
| Xylene | 0.27 |
|  | 10.33 |

Non- VOC LAC 33:III. Chapter 51 Toxic Air Pollutants (TAPs):

|  |  |
| --- | --- |
| Pollutant | Emissions (TPY) |
| Antimony & Compounds | 0.003 |
| Arsenic & Compounds | <0.001 |
| Barium & Compounds | 0.005 |
| Beryllium & Compounds | <0.001 |
| Cadmium & Compounds | 0.001 |
| Chromium VI | 0.016 |
| Cobalt & Compounds | <0.001 |
| Copper & Compounds | 0.006 |
| Lead Compounds | 0.02 |
| Manganese & Compounds | 0.25 |
| Mercury & Compounds | 0.002 |
| Nickel & Compounds | 0.008 |
| Selenium & Compounds | <0.001 |
| Zinc & Compounds | 0.03 |

0.345

# Type of Review

This permit was reviewed for compliance with 40 CFR 70, NESHAP and the Louisiana Air Quality Regulations. Prevention of Significant Deterioration (PSD), Compliance Assurance Monitoring (CAM), and New Source Performance Standards (NSPS) do not apply.

Facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart ZZZZZ.

This facility is a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51.

# Credible Evidence

Notwithstanding any other provisions of any applicable rule or regulation or requirement of this permit that state specific methods that may be used to assess compliance with applicable requirements, pursuant to 40 CFR Part 70 and EPA's Credible Evidence Rule, 62 Fed. Reg. 8314 (Feb. 24, 1997), any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed shall be considered for purposes of Title V compliance certifications. Furthermore, for purposes of establishing whether or not a person has violated or is in violation of any emissions limitation or standard or permit condition, nothing in this permit shall preclude the use, including the exclusive use, by any person of any such credible evidence or information.

# Public Notice

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, on December 22, 2011; and in the *The Daily Star*, Amite, on December 22, 2011. A copy of the public notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List on December 22, 2011. The draft permit was also submitted to US EPA Region VI on December 22, 2011. No comments were received.

# Effects on Ambient Air

Emissions associated with the proposed modification were reviewed by the LDEQ to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

1. **General Condition XVII Activities**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | Emission Rates - tons | | | | |
| Work Activity | Schedule | PM10 | SO2 | NOX | CO | VOC |
| EAF maintenance | Daily | 0.05 | - | - | - | 0.05 |
| Housekeeping procedures | Daily | 1.00 | - | - | - | - |
| Filter replacement | As needed | 0.1 | - | - | - | - |
| Solids and Casting loading and unloading | Daily | 0.2 | - | - | - | - |

# Insignificant Activities

| ID No.: | Description | Citation |
| --- | --- | --- |
|  | Small combustion sources | LAC 33:III.501.B.5.A.1 |
|  | Core repair | LAC 33:III.501.B.5.A.7 |
|  | Pattern repair shop | LAC 33:III.501.B.5.D |
| ID No.: | Description | Citation |
|  | Water cooling tower | LAC 33:III.501.B.5.D |
|  | Propylene combustion | LAC 33:III.501.B.5.A.1 |
|  | Scrap Storage, Handling, and Charging | LAC 33:III.501.B.5.D |
|  | Welding Electrodes Usage | LAC 33:III.501.B.5.D |
|  | Castings Grinding and Finishing | LAC 33:III.501.B.5.D |
|  | Slag Handling | LAC 33:III.501.B.5.D |
|  | Waste Sand Handling | LAC 33:III.501.B.5.D |
|  | Mold Flasks Cleaning | LAC 33:III.501.B.5.D |
|  | Industrial Paved Roads | LAC 33:III.501.B.5.D |

| Table 1. Applicable Louisiana and Federal Air Quality Requirements | | | | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ID No. | Description | LAC 33:III.Chapter | | | | | | | | | | | | | | | | | | |
| 5▲ | 509 | 9 | 11 | 13 | 15 | 17 | 21 | 2123 | 2107 | 2113 | 2121 | 2116\* | 22 | 28 | 51\* | 53\* | 56 | 59\* |
| UNF 01 | Entire Facility |  |  | 1 | 1 | 1 |  |  |  |  |  | 1 |  |  |  |  |  | 3 |  | 3 |
| EQT 01 | Fresh Sand Handling and Blended Sand Silos |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EQT 02 | Preheat/Heat transfer ovens |  |  |  | 1 | 1 | 3 |  | 3 |  |  |  |  |  |  |  |  |  |  |  |
| EQT 03 | Reclaim sand system |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EQT 04 | Casting shakeout |  |  |  |  | 1 |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |
| ARE 01 | Metal melting and refining |  |  |  |  | 1 | 3 | 3 | 3 |  |  |  |  |  |  |  |  |  |  |  |
| ARE 02 | Core and mold making |  |  |  |  | 1 |  |  |  |  |  |  | 2 |  |  |  |  |  |  |  |
| ARE 03 | Metal pouring and cooling |  |  |  |  | 1 | 3 |  | 3 |  |  |  |  |  |  |  |  |  |  |  |
| ARE 04 | Casting cleaning (shot blasting) |  |  |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ARE 05 | Various metal painting |  |  |  |  | 1 |  |  |  | 1 |  |  |  |  |  | 3 |  |  |  |  |

\* The regulations indicated above are State Only regulations.

▲ All LAC 33:III Chapter 5 citations are federally enforceable including LAC 33:III.501.C.6 citations, except when the requirement found in the “Specific Requirements” report specifically states that the regulation is State Only.

KEY TO MATRIX

1 - The regulations have applicable requirements that apply to this particular emission source.

- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

2 - The regulations have applicable requirements that apply to this particular emission source but the source is currently exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified or reconstructed since the regulations have been in place. If the specific criteria changes the source will have to comply at a future date.

3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

| **X. Table 1. Applicable Louisiana and Federal Air Quality Requirements** | | | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ID No. | Description | 40 CFR 60 NSPS | | | | | | | | | 40 CFR 63 NESHAP | | | | | | 40 CFR | | |
| A | K | Ka | Kb | Db | Dc | GG | AAa | IIII | MMMM | YYYYY | XXXXXX | EEEEE | ZZZZZ | HHHHHH | 52 | 64 | 68 |
| UNF 01 | Entire Facility |  |  |  |  |  |  |  | 3 |  | 3 |  | 3 | 3 | 1 |  | 2 |  | 3 |
| EQT 01 | New sand system |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EQT 02 | Preheat/Heat transfer ovens |  |  |  |  |  | 3 |  |  |  |  |  |  |  |  |  |  |  |  |
| EQT 03 | Reclaim sand system |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 3 |  |
| EQT 04 | Casting shakeout |  |  |  |  |  |  |  |  |  |  |  |  | 3 | 2 |  |  | 3 |  |
| ARE 01 | Metal melting and refining |  |  |  |  |  |  |  | 3 |  |  | 3 |  | 3 | 1 |  |  | 3 |  |
| ARE 02 | Core and mold making |  |  |  |  |  |  |  |  |  |  |  |  | 3 | 1 |  |  |  |  |
| ARE 03 | Metal pouring and cooling |  |  |  |  |  |  |  |  |  |  |  |  | 3 | 2 |  |  | 3 |  |
| ARE 04 | Casting cleaning (shot blasting) |  |  |  |  |  |  |  |  |  |  |  | 3 | 3 |  |  |  | 3 |  |
| ARE 05 | Various metal painting |  |  |  |  |  |  |  |  |  | 3 |  | 3 |  |  | 3 |  |  |  |

KEY TO MATRIX

1 - The regulations have applicable requirements that apply to this particular emission source.

- The emission source may have an exemption from control stated in the regulation. The emission source may not have to be controlled but may have monitoring, recordkeeping, or reporting requirements.

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3 - The regulations apply to this general type of emission source (i.e. vents, furnaces, towers, and fugitives) but do not apply to this particular emission source.

Blank – The regulations clearly do not apply to this type of emission source.

| XI. Table 2. Explanation for Exemption Status or Non-Applicability of a Source | | |
| --- | --- | --- |
| ID No: | Requirement | Notes |
| UNF 001  Entire Facility | NSPS Subpart AAa Electric Arc Furnaces at Steel Plants [40 CFR 60.270a] | DOES NOT APPLY. Facility only casts finished products and not intermediates requiring further work. |
|  | MACT Subparts MMMM Surface Coating and Subpart EEEEE Foundries. | DOES NOT APPLY. Facility is not a Major HAP source per U.S. EPA definitions. |
|  | Chemical Accident Prevention and Minimization of Consequences [LAC 33.III.5909] | DOES NOT APPLY. Bradken-Amite, Inc does not have a process that has a regulated substance present in more than the threshold quantity. None of LAC 33.III.Chapter 59 applies to Bradken-Amite, Inc. (see 40 CFR Part 68, above). |
|  | NESHAP ZZZZZ National Emission Standard for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources. | The facility was classified as a small foundry in January 2009. Re-evaluate area as small or large at the end of each calendar year starting 2009. (Reclassification rule only applies to small foundries.) 40 CFR 63.10880.f. |
|  | NESHAP XXXXXX National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories | DOES NOT APPLY. The facility is not primarily engaged any of the 9 operations listed in 40 CFR 63.11514. |
|  | Comprehensive Toxic Air Pollutants Program[LAC 33: III. Chapter 51] | DOES NOT APPLY. The facility is a minor source of toxic air pollutants. |
|  | 40 CFR Part 52 | EXEMPT. There are no physical changes in the method of operation associated with this application. |
| EQT 2  Preheat/Heat Transfer Ovens | NESHAP YYYY National Emission Standard for Hazardous Air Pollutants for Stationary Combustion Turbines | DOES NOT APPLY. The facility is not a major source of HAP emissions and does not operate a stationary combustion turbine. |
| Control of Emissions of Organic Compounds [LAC 33:III.2115] | DOES NOT APPLY. No waste gas streams enter the ovens. |
| EQT 2  Preheat/Heat Transfer Ovens | NSPS Dc Commercial-Institutional Steam Generating Units. | DOES NOT APPLY. The ovens do not have steam generating capability. |
| EQT 3  Reclaim Sand System | Compliance Assurance Monitoring (CAM) [40 CFR 64] | DOES NOT APPLY. The facility was not a major source for PM emissions. Also, pre-control device PTE is less than 100 tons/yr. |
| EQT 4  Casting Shakeout | MACT Subpart EEEEE Foundries. | DOES NOT APPLY. Facility is not a Major HAP source per U.S. EPA definitions. |
| Compliance Assurance Monitoring (CAM) [40 CFR 64] | DOES NOT APPLY. The facility was not a major source for PM emissions. Also, pre-control device PTE is less than 100 tons/yr. |
| Control of emissions of Organic Compounds [LAC 33:III.Chap. 21] | DOES NOT APPLY. Casting shakeout does not fall in any category regulated under LAC 33:III.21 |
| ARE 1  Metal Melting and Refining | NSPS Subpart AAa Electric Arc Furnaces at Steel Plants [40 CFR 60.270a] | DOES NOT APPLY. Facility only casts finished products and not intermediates requiring further work. |
|  | MACT Subpart EEEEE Foundries. | DOES NOT APPLY. Facility is not a Major HAP source per U.S. EPA definitions. |
|  | Compliance Assurance Monitoring (CAM) [40 CFR 64] | DOES NOT APPLY. The facility was not a major source for PM emissions. Also, pre-control device PTE is less than 100 tons/yr. |
|  | Emission Standards for Sulfur Dioxide LAC 33:III.1503 | DOES NOT APPLY. Units emit <5 tons/yr. |
|  | NESHAP YYYYY National Emission Standard for Hazardous Air Pollutants for Area/Sources: Electric Arc Furnace Steelmaking Facilities(EAF) | DOES NOT APPLY. NESHAP excludes EAF steelmaking facilities at steel foundries and EAF facilities used to produce nonferrous metals. |
| Control of emissions of Organic Compounds [LAC 33:III.21] | DOES NOT APPLY. Electric arc furnaces do not fall in any category regulated under LAC 33:III.21. |
| ARE 1  Metal Melting and Refining | Control of Emissions of Carbon Monoxide [LAC 33:III.17] | DOES NOT APPLY. Electric arc furnaces are not listed among the sources to be regulated. |
| NSPS Subpart AAa Electric Arc Furnaces at Steel Plants | DOES NOT APPLY. The facility is not a steel plant. |
| ARE 2  Core and Mold Making | MACT Subpart EEEEE Foundries. | DOES NOT APPLY. Facility is not a Major HAP source per U.S. EPA definitions. |
| Fugitive Emission Control [LAC 33:III.2121] | DOES NOT APPLY. The facility is not one of the industries listed in LAC 33:III.2121. |
| ARE 3  Metal Pouring and Cooling | MACT Subpart EEEEE Foundries. | DOES NOT APPLY. Facility is not a Major HAP source per U.S. EPA definitions. |
|  | Emission Standards for Sulfur Dioxide LAC 33:III.1503 | DOES NOT APPLY. Units emit <5 tons/yr. |
| Control of emissions of Organic Compounds [LAC 33:III.21] | DOES NOT APPLY. Metal pouring and cooling do not fall in any category regulated under LAC 33:III.21. |
| Compliance Assurance Monitoring (CAM) [40 CFR 64] | DOES NOT APPLY. The facility was not a major source for PM emissions. |
| ARE 4  Casting Cleaning (Shot Blasting) | MACT Subpart EEEEE Foundries. | DOES NOT APPLY. Facility is not a Major HAP source per U.S. EPA definitions. |
| Compliance Assurance Monitoring (CAM) [40 CFR 64] | DOES NOT APPLY. The facility was not a major source for PM emissions. Also, pre-control device PTE is less than 100 tons/yr. |
| ARE 5  Various Metal Painting | MACT Subpart MMMM Surface Coating. | DOES NOT APPLY. Facility is not a Major HAP source per U.S. EPA definitions. |
| MACT Subpart HHHHHH National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. | DOES NOT APPLY. The facility does not conduct operations listed in this subpart and does not perform spray application of coatings that contain the target HAPs listed in the subpart. |
| ARE 5  Various Metal Painting | Lead Based Paint Activities [LAC 33:III.28] | DOES NOT APPLY. No lead based paints are used at the facility. |

|  |
| --- |
| The above table provides explanation for both the exemption status and non-applicability of a source cited by 1, 2 or 3 in the matrix presented in Section X (Table 1) of this permit. |