

PERMIT BOOK

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number:

032011-011

Project Number: 2011-02-012

Installation Number: 093-0009

Parent Company: The Doe Run Company

Parent Company Address: 1801 Park 270 Drive, St. Louis, MO 63146

Installation Name: Buick Resources Recycling Facility, LLC

Installation Address: 18954 Highway KK, Boss, MO 65440

Location Information: Iron County, S14, T34, R2W

Application for Authority to Construct was made for:

A new portable screening plant consisting of a 40 ton per hour screen, a conveyor, a 0.2 acre storage pile and a 95 Horsepower (Hp) generator. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

MAR 24 2011

EFFECTIVE DATE

A handwritten signature in cursive script, reading "James L. Kavanaugh".

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC 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 AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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| Permit No. | |
| Project No. | 2011-02-012 |

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Buick Resource Recycling Facility, LLC
Iron County, S14, T34, R2W

1. Emission Limitation
 - A. Buick Resource Recycling Facility, LLC shall emit less than 0.6 tons of Lead (Pb) in any consecutive 12-month period from the emission points listed below.
 - 1) EP-91 Screen
 - 2) EP-92 Conveyor
 - 3) EP-93 Wind Erosion
 - 4) EP-93 Vehicle Activity
 - 5) EP-93 Load Out
 - B. Buick Resource Recycling Facility, LLC shall limit the amount of material processed through the emission points below up to 448 tons per day for less than or equal to 70% lead bearing refinery dross material or 500 tons per day for less than or equal to 55% lead bearing reverberatory slag material or 960 tons per day for less than or equal to 20% lead bearing crane isle slag material. When processing multiple materials on the same day the 448 tons per day of material is the daily limit to ensure compliance with the Risk Assessment Levels (RAL) for Lead Compounds from the emission points listed below. Processing lead bearing material above 70 % lead (Pb) is not authorized.
 - 1) EP-91 Screen
 - 2) EP-92 Conveyor
 - 3) EP-93 Wind Erosion
 - 4) EP-93 Vehicle Activity
 - 5) EP-93 Load Out
 - C. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1.A. and 1.B.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

2. **Wet Suppression Control System Requirement**
 - A. Buick Resource Recycling Facility, LLC Buick Resource Recycling Facility, LLC shall install and operate wet spray bars on all conveyors and screens to the extent it does not result in carryover of fines with the oversize material or create water runoff condition. .
 - B. Watering may be suspended during periods of freezing condition, when use of the wet spray bars may damage the equipment, plug the screens or result in ice formation. During these conditions, Buick Resource Recycling Facility, LLC Buick Resource Recycling Facility, LLC shall adjust the production rate to control emissions from these units and Buick Resource Recycling Facility, LLC shall record a brief description of such events.
3. **Minimum Distance to Property Boundary Requirement**

The primary emission point shall be located at least 615 feet from the nearest property boundary.
4. **Record Keeping Requirement**

Buick Resource Recycling Facility, LLC shall maintain all records required by this permit for five years and make them available to any Missouri Department of Natural Resources personnel upon request.
5. **Reporting Requirement**

Buick Resource Recycling Facility, LLC shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of the limitations imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2011-02-012
Installation ID Number: 093-0009
Permit Number:

Buick Resource Recycling Facility, LLC
18954 Highway KK
Boss, MO 65440

Complete: February 18, 2011

Parent Company:
The Doe Run Company
1801 Park 270 Drive
St. Louis, MO 63146

Iron County, S14, T34, R2W

REVIEW SUMMARY

- Buick Resource Recycling Facility, LLC has applied for authority to install a 40 ton per hour screen, a conveyor, a 0.2 acre storage pile and a 95 Horsepower diesel engine. It will size reverberatory furnace slag, refinery dross and crane isle slag.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. Lead Compounds is the HAP expected from the operation of the equipment. Elemental lead is not a HAP.
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" does not apply to the equipment. The application indicates that the screen will not process stone. Processing stone which is on the list of non metallic minerals would make 40 CFR 60 Subpart OOO applicable.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Water spray bars are being used to control the PM, PM₁₀ and PM_{2.5} emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of all pollutants are conditioned below de minimis levels.
- This installation is located in Iron County, an attainment area for all criteria pollutants.

- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.
- Ambient air quality modeling was performed to determine the ambient impact of Lead Compounds.
- Emissions testing are not required for the equipment.
- This equipment will need to be added to the approved Part 70 Operating Permit within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

The Doe Run Company operates the Buick Resources Recycling Facility (BRRF) and is a major source with a Part 70 operating permit. They are an industry leader in lead recycling. Battery recycling yields a useful byproduct, sodium sulfate, which is used in laundry detergent, paper and glass manufacturing industries. Approximately, seventy five percent or more of the lead recycled at BRRF comes in the form of automotive and industrial batteries.

Batteries arrive at BRRF in Boss, Missouri by truck. They are unloaded and placed into a battery bunker. Approximately one-third of all batteries that are received still have an electrical charge on them, so the batteries are picked up by a loader and placed into a stainless steel shredder.

The whole battery is broken in the shredder, and the battery acid (weak sulfuric acid) is drained and collected into storage tanks. This acid is used later in the process. The shredded batteries are placed in a vibrating feeder that feeds a conveyor belt into the hammer mill. The hammer mill pounds the battery into smaller pieces.

Each lead acid battery contains a set of metal grids, lead posts, plastic components, separators, and a lead sulfate paste. The paste is removed by washing through sets of screens for further processing. After going through the hammer mill, the battery pieces enter into a hydro separator where water separates the heavier elements. All of the lead and metal components sink to the bottom and the floating items are skimmed off and sent to the recycling facilities.

The metallic portions of the batteries including grids, posts, other metallic's and constituents are primarily fed to the reverberatory furnace and maybe fed to the blast furnace as well. Lead from the furnaces is mixed with other metals to produce alloys that are cast into products of various weights, shapes and sizes in the refinery.

Lead alloys are combinations of lead metal that yield different physical and chemical properties. The finished lead is sent predominately to customers in North America. While the lead components are being processed, the battery paste is de-sulfurized through a chemical reaction with sodium carbonate. The battery paste is transferred to one of the two desulfurization reaction tanks and mixed with sodium carbonate (Na_2CO_3). The Na_2CO_3 reacts with the lead sulfate (PbSO_4) in the battery paste to produce a lead carbonate (PbCO_3) paste and a sodium sulfate (Na_2SO_4) solution. This process improves the furnace efficiency by reducing the amount of fluxing agents required to reduce lead-sulfur compounds to lead metal. The process also reduces sulfur dioxide (SO_2) furnace emissions. The lead carbonate material is removed by passing the reacted material through a filter press. The remaining sodium sulfate solution is then crystallized to produce a high quality salt that is marketed to the laundry detergent, paper, and glass industries.

The remaining lead carbonate paste is heated at extremely high temperatures in a reverberatory furnace to produce soft antimonial lead bullion and a high antimony product called reverberatory slag. The reverberatory slag is fed to the blast furnace to recover the antimonial lead. What remains is a small quantity of secondary blast furnace slag, a glassy sand like material that consists of silica, calcium, iron and approximately less than two percent lead. This slag may be treated prior to being transported to the on-site landfill or offsite for disposal.

The following permits have been issued to Doe Run Company-BRRF from the Air Pollution Control Program.

Table 1: Permits Issued to Doe Run Company-BRRF.

| Permit Number | Description |
|---------------|--|
| 0179-018 | Minor Source Permit |
| 0989-003 | Major Source Review |
| 0792-016 | Minor Source Permit |
| 0493-006 | Minor Source Permit |
| 1093-010 | Minor Source Permit |
| 0693-013 | Minor Source Permit |
| 1093-003 | Minor Source Permit |
| 0989-003 | Minor Source Permit |
| 0989-003 | Minor Source Permit – amendment increase in lead bullion |
| 1095-009 | Minor Source Permit- install pot furnace |
| | Temporary permit slag treatment process |
| 1296-012 | Minor Source Permit - oxide transfer system |
| 0297-015 | Minor Source Permit - slag treatment system |
| 0997-006 | Minor Source Permit - Metal reclamation sweat furnace |
| OP | Part 70 Operating Permit |
| 102000-007 | Minor Source Permit - Blast furnace production |
| 012005-008 | Secondary smelter Major Source Review |
| 092006-007 | Multi-Hearth Rotary Furnace |
| 012005-008A | Amendments |
| 012010-006 | Boilers |

PROJECT DESCRIPTION

This is a new screening operation set upon Buick Resource Recycling Facility, LLC. This is a stationary plant that is portable with restrictions on the distance to the property boundary and will be portable plant PORT-0676 when it is moved to a new location.

Reverberatory furnace slag is approximately 55 percent lead (Pb) by weight, refinery dross is approximately 70 percent Lead (Pb) by weight, and crane isle slag is approximately 20 percent Lead (Pb) by weight. All three products will be processed by the portable screening operation. The installation may take samples of the material processed to determine the weight percent of lead content to maximize the processing of material on the annual basis. Materials that exceed 70 percent lead (Pb) are not authorized. The daily tonnage when processing more than one type of the above materials material is restricted to 448 tons of material processed per day. This restriction is impacted by the lead (Pb) percent by weight of the material processed as it is based on the amount of particulate matter generated. Like wise, reverberatory furnace slag greater than 55 percent lead (Pb) by weight and crane isle slag greater than 20 percent lead (Pb) by weight is not authorized at the daily tonnage limit. If the, reverberatory furnace slag is found to be greater than 55 percent lead (Pb) by weight and crane isle slag greater than 20 percent lead (Pb) by weight, but less than 70 percent Lead (Pb) by weight than it can be processed at 448 tons per day.

Material will be loaded to the screen by front end loader. Over sized material will drop onto the ground next to the screen and material passing through the screen will be transported to a storage pile via a conveyor. The portable screen system is powered by a 95 Hp diesel engine. The rated capacity of the screen is 40 tons per hour.

The screening operation took an annual limit to stay under the de minimis level for elemental lead (0.6 tons of Pb per year) and is limited to a daily tonnage level to stay under the risk assessment levels for Pb Compounds. When processing refinery dross at 70 percent lead (Pb) or reverberatory slag at 55 percent lead (Pb) the annual limit will not allow for the amount of material restricted by the daily limit to be processed continuously before the annual limit would be attained, seeTable 2.

This plant is part of the Buick Resource Recycling Facility, LLC. However, the plant is portable and may be moved to other locations. When the plant is operating at the Buick Resource Recycling Facility, LLC, it will be operating under this permit. When it operates at another location, it will need to obtain a new permit under PORT-0676.

Table 2: Lead (Pb) emissions calculations

| ID | Description | Daily Limit (tons/day) | PM ₁₀ Emission Factor (lb/ton) | Lead (Pb) Content Weight % | Control | Lead (Pb) Emissions (ton/year) |
|---|------------------|------------------------|---|----------------------------|---------|--------------------------------|
| Screen Lead Emissions when Processing Refinery Dross at 70% Pb | | | | | | |
| EP-91 | Screen | 448 | 0.0074 | 70 | 0.915 | 0.036 |
| EP-92 | Conveyor | 448 | 4.6 x10 ⁻⁵ | 70 | 0.958 | 0.00011 |
| EP-93 | Wind Erosion | 0.2 | 0.000446 | 70 | 0 | 1.1x10 ⁻⁵ |
| EP-93 | Vehicle Activity | 448 | 0.00842 | 70 | 0.9 | 0.00481 |
| EP-93 | Load Out | 448 | 0.011991 | 70 | 0 | 0.686 |
| Total Lead Pb tons emitted per year following daily limit | | | | | | 0.727* |
| Screen Lead Emissions when Processing Reverberatory Slag at 55% Pb | | | | | | |
| EP-91 | Screen | 500 | 0.0074 | 55 | 0.915 | 0.0316 |
| EP-92 | Conveyor | 500 | 4.6 x10 ⁻⁵ | 55 | 0.958 | 9.67x10 ⁻⁵ |
| EP-93 | Wind Erosion | 0.2 | 0.000446 | 55 | 0 | 8.95x10 ⁻⁶ |
| EP-93 | Vehicle Activity | 500 | 0.00842 | 55 | 0.9 | 0.00423 |
| EP-93 | Load Out | 500 | 0.011991 | 55 | 0 | 0.602 |
| Total Lead (Pb) tons emitted per year following daily limit | | | | | | 0.638* |
| Screen Lead Emissions when Processing Crane Isle Slag at 20% Pb | | | | | | |
| EP-91 | Screen | 960 | 0.0074 | 20 | 0.915 | 0.0220 |
| EP-92 | Conveyor | 960 | 4.6 x10 ⁻⁵ | 20 | 0.958 | 6.77x10 ⁻⁵ |
| EP-93 | Wind Erosion | 0.2 | 0.000446 | 20 | 0 | 3.26x10 ⁻⁶ |
| EP-93 | Vehicle Activity | 960 | 0.00842 | 20 | 0.9 | 0.00295 |
| EP-93 | Load Out | 960 | 0.011991 | 20 | 0 | 0.420 |
| Total Lead (Pb) tons emitted per year following daily limit | | | | | | 0.445 |

*Limited to 0.6 tons per year.

EMISSIONS/CONTROLS EVALUATION

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (EPA) document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from the rock-crushing equipment were calculated using emission factors from AP-42 Section 11.19.2 “Crushed Stone Processing and Pulverized Mineral Processing,” August 2004. The controlled emission factors were used because the equipment is control by water spray bars.

Emissions from the diesel engines/generators were calculated using emission factors from AP-42 Section 3.3 Gasoline and Diesel Industrial Engines,” October 1996.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 “Unpaved Roads,” November 2006. A 90 percent control efficiency is applied to the emission calculations for the use of BMPs.

Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the aggregate is 1.5% weight. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program’s Emissions Inventory Questionnaire Form 2.8 “Storage Pile Worksheet.”

Table 3: Emissions Summary (tons per year)

| Pollutant | Regulatory <i>De Minimis</i> Levels | Existing Potential Emissions | Existing Actual Emissions | Potential Emissions of the Application | Conditioned Potential |
|-------------------|-------------------------------------|------------------------------|---------------------------|--|-----------------------|
| PM | 50.0 | N/A | N/A | 5.51 | N/D |
| PM _{2.5} | 10.0 | N/A | N/A | 0.43 | N/D |
| PM ₁₀ | 15.0 | N/A | N/A | 2.46 | N/D |
| SO _x | 40.0 | N/A | N/A | 0.88 | N/D |
| NO _x | 40.0 | N/A | N/A | 13.34 | N/D |
| VOC | 40.0 | N/A | N/A | 1.09 | N/D |
| Pb | 0.6 | N/A | N/A | 3.86 | 0.6 |
| CO | 100.0 | N/A | N/A | 2.87 | N/D |
| HAPs | 10.0/25.0 | N/A | N/A | 0.01 | N/D |

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Buick Resource Recycling Facility, LLC shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

AMBIENT AIR QUALITY IMPACT ANALYSIS

The location of this facility in Iron County is an attainment area for particulate matter less than ten microns (PM₁₀) and a non attainment area for Lead (Pb). Nomographs were utilized to determine if PM₁₀ concentrations at the property boundary were exceeding the National Ambient Air Quality Standards (NAAQS) of 150 micrograms per cubic meter, ($\mu\text{g}/\text{m}^3$) 24-hour average. The model predicts that the PM₁₀ impact is 0.49 $\mu\text{g}/\text{m}^3$ which is less than 150 $\mu\text{g}/\text{m}^3$. Therefore, no appreciable adverse impact on the local ambient air quality is expected as a result of this screening operation at this site. When the Potential To Emit exceeds the Screen Model Action Level (SMAL) the installation must show compliance with the Risk Assessment Levels (RAL). In this case, the nomographs were utilized to determine if Lead (Pb) concentration at the property boundary, 615 feet away exceeded the RAL values for the various lead (Pb) bearing materials.

Table 4 shows that the RAL concentrations were not exceeded when the daily tonnage was held to 448 tons per day for less than or equal to 70 percent lead bearing materials. Limiting the daily tonnage to 448 tons per day for lead bearing material less than or equal to 70 percent lead (Pb) will need to be a special condition of the permit. Table 4 indicates that limiting the daily tonnage to less than 500 tons per day for lead bearing material less than or equal to 55 percent lead (Pb) will need to be a special condition of the permit and limiting the daily tonnage to 960 tons per day for less than or equal to 20 percent lead bearing materials. Also, when operating more than one material per day, the 448 tons per day would need to be a special condition of the permit to avoid exceeding the RAL concentrations.

Table 4: Modeled Impact and RAL Values For Lead (Pb) Compounds

| Pollutant | Modeled Impact $\mu\text{g}/\text{m}^3$ | RAL for Pb Compounds $\mu\text{g}/\text{m}^3$ | Time Period | The percent of Lead(PB) in Feed Material | Tons Per Day |
|--------------|---|---|-----------------|--|--------------|
| Pb Compounds | 0.34 | 0.357 | 24hr | 70 | 448 |
| Pb Compounds | 0.595 | 2.0 | 8hr | 70 | 448 |
| Pb Compounds | 0.068 | 0.07 | annual | 70 | 448 |
| Pb Compounds | 0.068 | 0.7 | 10 times annual | 70 | 448 |
| Pb Compounds | 0.35 | 0.357 | 24hr | 55 | 500 |
| Pb Compounds | 0.613 | 2.0 | 8hr | 55 | 500 |
| Pb Compounds | 0.07 | 0.07 | annual | 55 | 500 |
| Pb Compounds | 0.07 | 0.7 | 10 times annual | 55 | 500 |
| Pb Compounds | 0.34 | 0.357 | 24hr | 20 | 960 |
| Pb Compounds | 0.595 | 2.0 | 8hr | 20 | 960 |
| Pb Compounds | 0.068 | 0.07 | annual | 20 | 960 |
| Pb Compounds | 0.068 | 0.7 | 10 times annual | 20 | 960 |

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Timothy Paul Hines
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated February 08, 2011, received February 09, 2011, designating The Doe Run Company as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southeast Regional Office Site Survey, dated March 02, 2011.

Attachment A –Daily and Monthly Lead (Pb) Compliance Worksheet

Buick Resource Recycling Facility, LLC
 Iron County, S14, T34N, R2W
 Project Number: 2011-02-012
 Installation ID Number: 093-0009
 Permit Number: _____

This sheet covers the period from _____ to _____.
(month, year) (month, year)

| Column A | Column B | Column C | Column D | Column E | Column F |
|--|---|---|--|--|---------------------------|
| Date | Tons Processed (Add individual materials to obtain Daily Total.) | Decimal Weight percent of Lead (Pb) in Material | Composite Emission Factor (0.03) (Pounds/Tons) | Pounds of Lead (Pb) Emitted (Add individual materials to obtain Daily Total) | Tons of Lead (Pb) Emitted |
| <i>Examples</i> | <i>(a)</i> | | | | |
| <i>September 01</i> | <i>120</i> | <i>0.70</i> | <i>0.03</i> | <i>2.52</i> | |
| <i>September 01</i> | <i>240</i> | <i>0.55</i> | <i>0.03</i> | <i>3.96</i> | |
| <i>September 01</i> | <i>40</i> | <i>0.12</i> | <i>0.03</i> | <i>0.144</i> | |
| <i>Total Tons per Day</i> | <i>400</i> | | <i>Total</i> | <i>6.624</i> | <i>0.00331</i> |
| <i>September 02</i> | <i>445</i> | <i>0.70</i> | <i>0.03</i> | <i>9.345</i> | |
| <i>Total Tons per Day</i> | <i>445</i> | | <i>Total</i> | <i>9.345</i> | <i>0.00467</i> |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| (b) Total Lead (Pb) Emissions calculated for the month in Tons: | | | | | |
| (c) 12 Month Lead (Pb) Emissions Total from previous Month's Attachment A in Tons: | | | | | |
| (d) Monthly Lead (Pb) Emissions Total (b) from Previous Year's Attachment A in Tons: | | | | | |
| (e) Current 12-month Total of Lead (Pb) emissions in Tons [(b) + (c) - (d)] | | | | | |

Instructions:

- (a) Enter the tons processed each day of each lead bearing material and total to show compliance with the RAL, if more than one material is processed. Less than 448 tons per day when multiple materials are processed shows compliance with the RAL. Column B times Column C times Column D = Column E. Column E is the pounds of Lead emitted for that day. The "Column E" daily totals are divided by 2000 to obtain Column F tons of Lead
- (b) The Summation of Column F. It is totaled to give the lead emission for the month.
- (c) 12-Month Lead Emissions (e) from last month's Attachment A in Tons;
- (d) Monthly Lead emissions total (b) from the previous year's Attachment A in Tons; and,
- (e) Calculate the new 12-month total combined Lead emission total. A 12 –Month Lead emission total (e) of less than 0.6 tons for the portable plant indicates compliance.

Mr. James Lanzafame
Environmental and Health Manager
Buick Resource Recycling Facility, LLC
18954 Highway KK
Boss, MO 65440

RE: New Source Review Permit - Project Number: 2011-02-012

Dear Mr. Lanzafame:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Timothy Paul Hines, at the Departments' 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
New Source Review Unit Chief

KBH:tphl

Enclosures

c: Southeast Regional Office
PAMS File: 2011-02-012

Permit Number: