

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: 012010-006 Project Number: 2009-09-042

Parent Company: The Doe Run Company

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

Installation Name: Buick Resource Recycling Facility, LLC

Installation Address: 18594 Highway KK, Boss, MO 65440

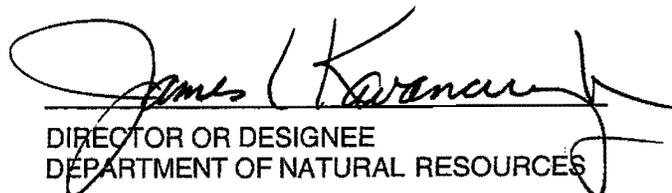
Location Information: Iron County, S14, T34N, R2W

Application for Authority to Construct was made for:
Installation of a new 34.87 MMBtu per hour propane boiler for the sodium sulfate crystallization process. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

JAN 19 2010

EFFECTIVE DATE


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 this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. 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 this (these) air contaminant source(s).

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 source(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.

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

Project Number: 2009-09-042
Installation ID Number: 093-0009
Permit Number:

The Doe Run Company -
Buick Resource Recycling Facility
18594 Highway KK
Boss, MO 65440

Complete: 093-0009

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

Iron County, S14, T34N, R2W

REVIEW SUMMARY

- Buick Resource Recycling Facility, LLC has applied for authority to install a new 34.87 MMBtu per hour propane boiler for the sodium sulfate crystallization process.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, of the New Source Performance Standards (NSPS) applies to new boiler.
- No air pollution control equipment is being used in association with the new equipment.
- 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 below de minimis levels.
- This installation is located in Iron County, an attainment area for all criteria air pollutants.
- This installation is on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2], Number 19, *Secondary Metal Production Plants*.
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required on the new boiler.

- A revision to your Part 70 Operating Permit application is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended without special conditions.

INSTALLATION DESCRIPTION

Buick Resource Recycling Facility, LLC (BRRF) located in Boss, Missouri, produces secondary lead by processing vehicle and industrial batteries, lead shielding from X-ray equipment, ballistic sand from firing ranges, lead-lined television screens, lead paint chips, and other lead scrap. This installation also produces high grade sodium sulphate which is marketed to the laundry detergent, paper and glass industries, by reacting lead sulphate with sodium carbonate. BRRF is a major source with a draft Part 70 operating permit.

The following permits have been issued to BRRF from the Air Pollution Control Program.

Table 1: Permits Issued to Buick Resource Recycling Facility, LLC

Permit Number	Description
0179-018	Installation of an electric furnace to replace a fuel fired reveratory furnace which was used to treat all dross produced at this facility.
0989-003	Construction and operation of a new secondary lead operation on the same property as the primary smelter.
0792-016	Installation of a steel drum shedder/chipper system to replace the existing drum dumping and material screening apparatus already in place and in use at the industrial battery processing area.
0493-006	Removal of 2 LPG warming units.
1093-010	Installation of LPG burner to flame skim lead bar surface.
0693-013	Sweat furnace changes.
1093-003	Installation of a metal reclamation furnace with fugitive dust capture hoods. The system includes afterburner control and exhausts to main baghouse collector.
0989-003A	Amendment to Permit Number 0989-003. This amendment changes the blast furnace annual throughput limit from 10,200 tons of lead bouillon to 60,000 tons when operating on secondary feed.
0989-003B	Amendment to Permit Number 0989-003A. This amendment reflects an increase (from 46,200 tons to 60,000 tons) in the annual maximum production in the reveratory furnace with a corresponding decrease (from 60,000 tons to 41,500 tons).
1095-009	Installation of a baghouse dust agglomeration furnace with associated screw conveyor and surge bin.
1296-012	Installation of a bulk storage silo and pneumatic conveying system (lead oxide transfer system) that exhaust to an existing baghouse.
0297-015	Installation of a slag treatment system consisting of a hopper, blender, material silo, and two conveyors.
0997-006	Installation of a sweat furnace, mold pouring, and material screening process.
102000-007	This is a temporary permit to increase the blast furnace lead production by 8,000 tons and temporarily reduce the rotary melter lead production by 10,000 tons until December 31, 2000.
012005-008	Elimination of the lead production limits from the individual furnaces and increasing of the installation's total lead production to 175,000 tons per year.
092006-007	The addition of a new multiple hearth rotary furnace to process battery separators as a heat source for the reveratory furnace and for metal recovery. The furnace installation includes further utilization of the existing reveratory furnace dross bunker as an ash storage area with screw conveyors for ash removal from the hearth and a feed storage area for the battery separators.
012005-008A	Amendment to revise emission rates.

PROJECT DESCRIPTION

Buick Resource Recycling Facility, LLC is seeking authority to install a 34.87 MMBtu per hour propane boiler. Currently, the sodium sulfate crystallizer utilizes two boilers (EP21). Only one of the boilers operates at a time. The second boiler serves as a backup and is only utilized when the primary boiler is undergoing maintenance. The existing backup boiler has become unreliable due to age and wear and the existing primary boiler is not as efficient as new boilers currently on the market. Therefore, Doe Run wishes to install a new boiler (EP-82), convert the existing primary boiler to the backup unit and shutdown the existing backup boiler. No controls will be used in conjunction with the new boiler.

EMISSIONS/CONTROLS EVALUATION

The emission factors for all pollutants except for SO₂ were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.5, *Liquefied Petroleum Gas Combustion* (July 2008). The SO₂ emission factor was calculated from the propane default of 0.00002% by weight used in Emission Inventory Questionnaire (EIQ) Form 2.1 instructions.

Existing actual emissions were obtained from the 2008 EIQ submittal. Potential emissions of the application represent the potential of the new boiler, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2008 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	Major	27.3	1.14	N/A
SO _x	40.0	Major	2,519	<<0.01	N/A
NO _x	40.0	Major	63.6	21.1	N/A
VOC	40.0	<100.0 tpy	1.74	1.30	N/A
CO	100.0	Major	13,390	12.2	N/A
HAPs	10.0/25.0	Major	10.57	N/A	N/A
Lead	0.6	Major	12.90	N/A	N/A

N/A = Not Applicable

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 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. For a complete list of applicable requirements for your installation, please consult your operating permit.

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 Odors, 10 CSR 10-3.090*

SPECIFIC REQUIREMENTS

- *New Source Performance Regulations, 10 CSR 10-6.070 – New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc*

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 without special conditions.

Susan Heckenkamp
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated September 10, 2009, received September 23, 2009, 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 October 6, 2009.

Mr. James Lanzafame
Environmental & Health Manager
The Doe Run Company - Buick Resource Recovery Facility
18594 Highway KK
Boss, MO 65440

RE: New Source Review Permit - Project Number: 2009-09-042

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 revised 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 Susan Heckenkamp, at the Departments' 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

Kendall B. Hale
New Source Review Unit Chief

KBH:shk

Enclosures

c: Southeast Regional Office
PAMS File: 2009-09-042

Permit Number: