



Jeremiah W. (Jay) Nixon, Governor

Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

June 3, 2013

Mr. James M. Lanzafame  
Environmental and Health Manager  
The Doe Run Company  
Buick Resource Recycling Facility, LLC  
18594 Highway KK  
Boss, MO 65440

RE: Class 1 Permit Modification with Prior Director's Approval  
Buick Resource Recycling Facility, LLC, Boss, Missouri  
EPA ID# MOD059200089

Dear Mr. Lanzafame:

The Missouri Department of Natural Resources (Department) hereby approves Buick Resource Recycling Facility, LLC's (BRRF) Class 1 Permit Modification request, dated May 9, 2013, with comments. The modification request was to add an additional Work Plan for implementing passive sampling technology to the existing Sampling and Analysis Plan.

We are approving the Class 1 Permit Modification request with the following comments:

1. As indicated during the March 28, 2013, meeting, Department approval to use the passive sampling technique will need to be done on a well-by-well basis. Testing of three wells in the Slag Storage Area using this technique does not constitute approval to use passive sampling techniques at any other monitoring wells at the facility. Well-by-well approval is necessary because the monitored zones at BRRF are heterogeneous and non-isotropic. Secondary porosity features are a significant, if not dominant, pathway for contaminant transport. Because of this, each well is a somewhat unique situation. Identifying the proper interval to place the HydraSleeve may vary significantly from well to well. The comparability with samples obtained from the dedicated pumps may also vary from well to well.
2. The Work Plan indicates that low-flow sample collection using the dedicated pumps should commence as soon as practicable following the completion of collecting HydraSleeve samples. No settling period is stated in the Work Plan. The Department is concerned that not enough time will elapse between sampling to allow the well to equilibrate, thus potentially not providing representative samples. The HydraSleeve sampler must be lifted forcefully to be sure to inflate the bag and gather water near the



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depth where each bag has been placed. Doing so will likely cause wellbore agitation and mobilize sediment thereby increasing turbidity. As a result, the subsequent dedicated pump samples, if taken immediately, may contain more turbidity than might otherwise be expected which may, in turn, artificially bias the groundwater analyses and make it difficult to assess the comparability of results between the HydraSleeve and dedicated pump samples. While you may proceed without waiting to take the dedicated pump samples, please realize the potential bias and associated difficulty in obtaining comparable samples between the two methods. Assuming that the dedicated pumps will truly be operated in a low flow manner when purging and sampling, you may want to consider taking those samples first so as to minimize turbidity then take the HydraSleeve samples. This is only a suggestion, not a requirement.

BRRF must send a notice of the modification to everyone on their facility mailing list and the appropriate units of state and local government within 90 calendar days after the date of this approval letter, as outlined in Code of Federal Regulations 40 CFR 270.42(a)(1)(ii), incorporated by reference in Code of State Regulations 10 CSR 25-7.270(1) and modified by 10 CSR 25-7.270(2)(A)6 and 10 CSR 25-7.270(2)(B)10. BRRF must send a copy of the notice to the Department.

If you have questions regarding this letter, please contact Nathan Graessle, P.E., Environmental Engineer, of my staff at the Missouri Department of Natural Resources, Hazardous Waste Program, P.O. Box 176, Jefferson City, MO 65102-0176, by telephone at (573) 751-3553 or 1-800-361-4827, or by e-mail at [nathan.graessle@dnr.mo.gov](mailto:nathan.graessle@dnr.mo.gov). Thank you.

Sincerely,

HAZARDOUS WASTE PROGRAM

[Original signed by Richard A. Nussbaum]

Richard A. Nussbaum, P.E., R.G.  
Chief, Permits Section

RAN:ngm

c: Mr. Wray Rohrman, Project Manager, U.S. EPA Region 7  
Southeast Regional Office, Missouri Department of Natural Resources