STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor Sara Parker Pauley, Director
DEPARTMENT OF NATURAL RESOURCES
dnr.mo.gov

April 11, 2013

CERTIFIED MAIL – 7009 3410 0001 8933 5690
RETURN RECEIPT REQUESTED

Michael Slenska, P.E.
Environmental Manager
Beazer East, Incorporated
c/o Three Rivers Management,
Incorporated
One Oxford Centre, Suite 3000
Pittsburgh, PA 15219-6401

RE: Class 1 Permit Modification with Prior Director's Approval with Conditions
Beazer East, Incorporated, Kansas City, Missouri
EPA ID# MOD007146517

Dear Mr. Slenska:

The Missouri Department of Natural Resources (Department) reviewed Beazer East Incorporated's (Beazer's) submittal of a Monitored Plume Stability and Groundwater Sampling and Analysis Plan (MPS/SAP) dated November 28, 2011. This request included revised groundwater sampling procedures including changes to the sampling frequency and methodology. The Department reviewed this submittal as a Class 1 Permit Modification request and considered follow-up discussions on related issues as part of this review. We hereby approve the subject permit modification with the following conditions:

- Beazer shall conduct future groundwater and surface sampling events using the analytical methods and at the frequencies specified on the Revised Groundwater Monitoring Well Sampling Schedule enclosed with this letter. (Note: A copy of the Previously Approved Groundwater Monitoring Well Sampling Schedule is also enclosed, but is for reference purposes only.)

- For any groundwater monitoring wells plugged/abandoned as a result of this approval (i.e., MW-1A and MW-1B at this time as agreed to during the teleconference on November 29, 2012), the plugging/abandonment shall be conducted pursuant to the requirements of Missouri Regulation 10 CSR 23-4.080 and according to Post Closure and Corrective Action Condition III.D.7. of the Missouri Hazardous Waste Management Facility (MHWMF) Part I Permit issued on September 30, 2011.

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- Beazer shall revise the MPS/SAP to retain the current well redevelopment trigger criterion of 10 percent occlusion of the well screen. An alternate well occlusion standard may be proposed and approved once several potential issues related to the current well construction details, measurement references, and screen occlusions have been satisfactorily resolved.

- The Appendix IX. sampling requirement specified in the MHWMF Part I Permit shall be modified to require the collection of samples for modified Appendix IX. analysis from two wells. The wells to be sampled will be left to the discretion of Beazer; however, the choice of wells shall include, at a minimum, one well containing low levels of dissolved phase contamination and one well containing moderate levels of dissolved phase contamination. The modified Appendix IX. analysis shall, at a minimum, include the following classes of constituents: metals (total and dissolved), dioxins and furans, semi-volatile organic compounds, and volatile organic compounds.

- Beazer shall revise the MPS/SAP to specify how any deviation from the planned sampling methodology that may occur during a sampling event will be tracked and reported. If any deviations from the planned sampling methodology do occur during a sampling event, Beazer must report those deviations and discuss the potential impacts to the sampling data, if any, in the annual groundwater reports.

- Beazer shall revise the MPS/SAP to specify a frequency schedule for the calibration of the field equipment. This field equipment calibration frequency must be performed, at a minimum, at the beginning of each sampling day to verify the accuracy of the field equipment. The Department recommends repeating the field equipment calibrations at the end of the sampling day to verify the accuracy of the field measurements collected during that sampling day.

- Beazer shall revise the MPS/SAP to specify the criteria to be used during well purging to determine when the field parameters have reached stabilization and a groundwater sample can be collected.

- Beazer shall revise the MPS/SAP to include a copy of the "model" worksheet that will be used to conduct annual well inspections.

- Beazer shall revise the MPS/SAP to reference an appropriate Health and Safety Plan (HASP) document that specifies the equipment and procedures to be used on issues involving recommended personal protective/monitoring equipment, periodic medical monitoring for site personnel, a field emergency contingency plan, etc. Alternately the Facility may submit an updated HASP that documents the information that will be used during future sampling events. The referenced HASP document specifying these personnel protection and emergency contingency plan issues shall be made available to the all sampling team personnel prior to any sampling event conducted at the Facility.

- Beazer shall submit a copy of the Quality Assurance Project Plan (QAPP) for the contract laboratory that conducts the chemical analysis of the groundwater samples for

future sampling events. If the contract laboratory is changed in the future, Beazer shall submit the QAPP for the newly selected contract laboratory at that time.

- Beazer shall revise the MPS/SAP to include the methods that will be used by the contract laboratory to document and report on the as-received temperature of the groundwater samples. Preferably this documentation/reporting would be included on the Chain-of-Custody Form, but Beazer may propose an alternate method if desired.

Beazer shall revise and resubmit the MPS/SAP within 45 days of receipt of this approval letter to reflect the conditions contained herein. In order to complete the required actions associated with this permit modification, Beazer must also send a notice of this modification to everyone on its facility mailing list and the appropriate units of state and local government within 90 calendar days after the date of this 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. Beazer must send a copy of the notice to the Department.

If you have questions regarding this letter, please contact William Fanska, P.E., 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 bill.fanska@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:wfs

Enclosures

c: Ms. Patricia Murrow, Project Manager, U.S. EPA Region 7
Kansas City Regional Office, Missouri Department of Natural Resources

Beazer East, Incorporated – Revised Groundwater Monitoring Well Sampling Schedule

				Revised Groundwater Sampling Schedule				
						Chemical Monitoring		
No.	Well ID	Well Designation	Hydraulic Zone	Well Inspections	Hydraulic Monitoring	Semi-Volatiles (8270C LL)	Semi-Volatiles (8270C)	Volatiles (8260B)
1	MW-03	Effectiveness	Shallow	Annual	Annual	--	--	--
2	MW-05R	Effectiveness	Shallow	Annual	Annual	--	Bi- Annual, If No NAPL	Bi- Annual, If No NAPL
3	MW-06	Effectiveness	Shallow	Annual	Annual	--	Bi-Annual	Bi-Annual
4	MW-07AR	Effectiveness	Shallow	Annual	Annual	--	Bi-Annual	Bi-Annual
5	MW-07B	Effectiveness	Deep	Annual	Annual	--	Bi-Annual	Bi-Annual
6	MW-10A	Effectiveness	Shallow	Annual	Annual	--	Bi- Annual, If No NAPL	Bi- Annual, If No NAPL
7	MW-11	Effectiveness	Shallow	Annual	Annual	--	Bi-Annual	Bi-Annual
8	MW-12A	Effectiveness	Shallow	Annual	Annual	--	Bi- Annual, If No NAPL	Bi- Annual, If No NAPL
9	MW-12BR	Effectiveness	Deep	Annual	Annual	--	Bi-Annual	Bi-Annual
10	MW-16A	Effectiveness	Shallow	Annual	Annual	--	Bi- Annual, If No NAPL	Bi- Annual, If No NAPL
11	MW-16B	Effectiveness	Deep	Annual	Annual	--	Bi- Annual, If No NAPL	Bi- Annual, If No NAPL
12	MW-20A	Effectiveness	Shallow	Annual	Annual	--	Bi-Annual	Bi-Annual
13	MW-21A	Effectiveness	Shallow	Annual	Annual	--	Bi-Annual	Bi-Annual
14	MW-24A	Effectiveness	Shallow	Annual	Annual	--	Bi-Annual	Bi-Annual
15	MW-24B	Effectiveness	Deep	Annual	Annual	--	Bi-Annual	Bi-Annual
1	MW-04A	Perimeter	Shallow	Annual	Annual	Annual	--	Bi-Annual
2	MW-04B	Perimeter	Deep	Annual	Annual	Annual	--	Bi-Annual
3	MW-09A	Perimeter	Shallow	Annual	Annual	Annual	--	Bi-Annual
4	MW-09B	Perimeter	Deep	Annual	Annual	Annual	--	Bi-Annual
5	MW-15A	Perimeter	Shallow	Annual	Annual	Annual	--	Bi-Annual
6	MW-17B	Perimeter	Deep	Annual	Annual	Annual	--	Bi-Annual
7	MW-17CR	Perimeter	Bedrock Zone	Annual	Annual	Annual	--	Bi-Annual
8	MW-18BR	Perimeter	Deep	Annual	Annual	Annual	--	Bi-Annual
9	MW-19B	Perimeter	Deep	Annual	Annual	Annual	--	Bi-Annual
10	MW-22A	Perimeter	Shallow	Annual	Annual	Annual	--	Bi-Annual
11	MW-22B	Perimeter	Deep	Annual	Annual	Annual	--	Bi-Annual
12	MW-23A	Perimeter	Shallow	Annual	Annual	Annual	--	Bi-Annual
1	MW-01A	Additional	Shallow	Abandon	Abandon	Abandon	Abandon	Abandon
2	MW-01B	Additional	Deep	Abandon	Abandon	Abandon	Abandon	Abandon
3	MW-03	Additional	Shallow	Annual	Annual	--	--	--
4	MW-08R	Additional	Shallow	Annual	Annual	--	--	--
5	MW-14A	Additional	Shallow	Annual	Annual	--	--	--
6	MW-14B	Additional	Deep	Annual	Annual	--	--	--

Beazer East, Incorporated – Previously Approved Groundwater Monitoring Well Sampling Schedule

				Previously Approved Groundwater Sampling Schedule				
						Chemical Monitoring		
No.	Well ID	Well Designation	Hydraulic Zone	Well Inspections	Hydraulic Monitoring	Semi-Volatiles (8270C LL)	Semi-Volatiles (8270C)	Volatiles (8260B)
1	MW-03	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
2	MW-05R	Effectiveness	Shallow	Annual	Annual	Not Sampled if NAPL Present	--	Not Sampled if NAPL Present
3	MW-06	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
4	MW-07AR	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
5	MW-07B	Effectiveness	Deep	Annual	Annual	Annual	--	Annual
6	MW-10A	Effectiveness	Shallow	Annual	Annual	Not Sampled if NAPL Present	--	Not Sampled if NAPL Present
7	MW-11	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
8	MW-12A	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
9	MW-12BR	Effectiveness	Deep	Annual	Annual	Annual	--	Annual
10	MW-16A	Effectiveness	Shallow	Annual	Annual	Not Sampled if NAPL Present	--	Not Sampled if NAPL Present
11	MW-16B	Effectiveness	Deep	Annual	Annual	Not Sampled if NAPL Present	--	Not Sampled if NAPL Present
12	MW-20A	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
13	MW-21A	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
14	MW-24A	Effectiveness	Shallow	Annual	Annual	Annual	--	Annual
15	MW-24B	Effectiveness	Deep	Annual	Annual	Annual	--	Annual
1	MW-04A	Perimeter	Shallow	Annual	Annual	--	Annual	Annual
2	MW-04B	Perimeter	Deep	Annual	Annual	--	Annual	Annual
3	MW-09A	Perimeter	Shallow	Annual	Annual	--	Annual	Annual
4	MW-09B	Perimeter	Deep	Annual	Annual	--	Annual	Annual
5	MW-15A	Perimeter	Shallow	Annual	Annual	--	Annual	Annual
6	MW-17B	Perimeter	Deep	Annual	Annual	--	Annual	Annual
7	MW-17CR	Perimeter	Bedrock Zone	Annual	Annual	--	Annual	Annual
8	MW-18BR	Perimeter	Deep	Annual	Annual	--	Annual	Annual
9	MW-19B	Perimeter	Deep	Annual	Annual	--	Annual	Annual
10	MW-22A	Perimeter	Shallow	Annual	Annual	--	Annual	Annual
11	MW-22B	Perimeter	Deep	Annual	Annual	--	Annual	Annual
12	MW-23A	Perimeter	Shallow	Annual	Annual	--	Annual	Annual
1	MW-01A	Additional	Shallow	Annual	Annual	--	--	--
2	MW-01B	Additional	Deep	Annual	Annual	--	--	--
3	MW-03	Additional	Shallow	Annual	Annual	Annual	--	Annual
4	MW-08R	Additional	Shallow	Annual	Annual	--	--	--
5	MW-14A	Additional	Shallow	Annual	Annual	--	--	--
6	MW-14B	Additional	Deep	Annual	Annual	--	--	--