STATE OF MISSOURI

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

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July 9, 2012

Mr. Craig Smith, PE U.S. EPA, Region VII 901 North 5th Street Kansas City, KS 66101



RE: Applicable or Relevant and Appropriate Requirements (ARARs) for the Hayford Bridge Road Groundwater Site, Operable Unit 3 in St. Charles, Missouri

Dear Mr. Smith:

Pursuant to EPA's request dated June 13, 2012, these are Missouri's Applicable or Relevant and Appropriate Requirements (ARARs) that have been identified for the Enforcement Action Memorandum to request and document approval of the proposed removal action for the Hayford Bridge Road Groundwater (HBR site) Site, Operable Unit 3 (OU3), located in the city of St. Charles, St. Charles County, Missouri.

The following are Potential ARARs/TBCs – Chemical Specific:

| Federal Regulation | Regulatory |
|--------------------------------------|---|
| (Statute – Citation) | Description |
| National Primary Drinking Water | Regulations establish chemical-specific maximum contaminant |
| Standards (Safe Drinking Water Act – | levels (MCLs) and MCL goals (MCLGs) for drinking water from |
| 40 CFR 141, Subpart B) | public, community, or non-transient water systems. |
| | Concentrations of contaminants exceeding the standards would |
| | prohibit use of the water source w/out first meeting the standards. |
| Ambient Water Quality Criteria | Establishes methods & requirements for states in the |
| (Clean Water Act – 40 CFR 131) | development of ambient water quality criteria for surface water |
| | for the protection of aquatic organisms &/or the protection of |
| | human health. |
| NPDES (Clean Water Act – 40 CFR | NPDES program of the Clean Water Act regulates discharges of |
| 122) | pollutants to surface water. |
| RCRA:- Subtitle C (Resource | Regulates hazardous waste activities from point of generation |
| Conservation and Recovery Act – 40 | through disposal; regulated wastes are either listed or exhibit |
| CFR 260 - 280) | hazardous characteristics; regulations address treatment, storage, |
| | and disposal of hazardous waste, includes permit program. |
| RCRA - Subtitle D (Resource | Regulates the disposal of solid waste. |
| Conservation and Recovery Act – 40 | , |
| CFR 258) | · |

| Clean Air Act | Protects ambient air quality through pollutant source control. It |
|---|--|
| (42 USC 7401-7671; 40 CFR 50 & 61) | establishes National Ambient Air Quality Standards (NAAQS) & |
| | National Emission Standards for Hazardous Air Pollutants |
| | (NESHAPs). |
| Occupational Safety & Health | Protects workers against the health effects of exposure to |
| Administration (OSHA) Permissible | hazardous substances. PELs are regulatory limits on the amount |
| Exposure Limits (PELs) | or concentration of a substance in the air. They may also contain |
| (29 CFR 1910.1000) | a skin designation. PELs are enforceable. OSHA PELs are based |
| · | on an 8-hour time weighted average (TWA) exposure. |
| State Regulation | Regulatory |
| (Statute – Citation) | Description |
| Drinking Water Regulations (10 CSR | Provides regulations and MCLs for public water supplies. |
| 60-4) | · |
| Water Quality Standards | Establishes the classifications and beneficial uses of groundwater |
| (10 CSR 20-7) | and surface water in Missouri. |
| Missouri Risk-Based Corrective | Provides a process for developing site clean-up levels based on |
| Action (MRBCA) Process (10 CSR | risk. Default clean-up levels have been developed and should be |
| 25-18.010) | considered. |
| Effluent Limitation | Establishes the maximum allowable amount of pollutants in |
| (10 CSR 20-9) | discharge effluent per category of water within the state. |
| Solid Waste Management (10 CSR | Defines the criteria for a landfill design and operation relative to |
| 80-5) | the landfill's acceptance of waste and the discharge of water |
| | quality/water treatment requirements. |

The following are Potential ARARs/TBCs – Location Specific:

| Federal Regulation | Regulatory |
|--------------------------------------|---|
| (Statute – Citation) | Description |
| Clean Air Act (42 USC 7401-7671; | Protects ambient air quality through pollutant source control. It |
| 40 CFR 50 and 61) | establishes National Ambient Air Quality Standards (NAAQS) & |
| | National Emission Standards for Hazardous Air Pollutants (NESHAPs). |
| Federal Endangered Species Act | The purpose of this act is to conserve endangered, threatened, & |
| (16 USC 1531 – 1544; 50 CFR 200 and | rare species of wildlife & plants. This regulation prohibits |
| 402) | federal agencies from jeopardizing habitat for endangered or |
| the second second second | threatened species for any action permitted, funded, or under the |
| | jurisdiction of a federal agency. Pertains to federally listed |
| • | species only. |
| Wetlands Protection | Section 404 regulates the discharge of dredged or fill materials |
| (Clean Water Act, Sec. 404; Exec. | into waters of US, including wetlands, involving construction of |
| Order 11990: 40 CFR 6.302, Appendix | facilities or management of properties in wetlands in order to |
| (A) | avoid adverse effect, minimize potential harm, & preserve & |
| | enhance wetlands to the extent possible. |
| Federal Floodplain Management | Regulates actions that will occur in floodplains or flood prone |
| Exec. Order 11988; 40 ,Clean Water | areas to avoid adverse effects due to flooding. |
| Act – 40 CFR 6.302, Appendix A) | • |
| State Regulation | Regulatory |
| (Statute – Citation) | Description |
| Wildlife Code of Missouri (3 CSR 10- | Requires a determination of the presence or absence of |
| 4.111) | endangered or threatened species, and provides for regulation of |
| | non-game wildlife. Places restrictions on actions affecting |
| | protected species. |

The following are Potential ARARs/TBCs – Action Specific:

| Federal Regulation | Regulatory |
|--|---|
| (Statute – Citation) | Description |
| RCRA – Subtitle C (Resource | Regulates hazardous waste activities from point of generation |
| Conservation and Recovery Act – | through disposal; regulated wastes are either listed or exhibit |
| 40 CFR 260 -299) | hazardous characteristics; regulations address treatment, storage, |
| | and disposal of hazardous waste, includes permit program. |
| RCRA – Subtitle D (Resource | Regulated the disposal of solid waste. |
| Conservation and Recovery Act – | · |
| 40 CFR 258) | |
| Occupational Health & Safety Act | Protects workers health. |
| (40 CFR 270) | D. C. L. L. C. L. L. C. L. |
| Underground Injection Control | Protects underground sources of drinking water by imposing |
| (40 CFR 144-147) | restrictions on underground injections. |
| NPDES | The NPDES program of the Clean Water Act regulates |
| (Clean Water Act – 40 CFR 122) | discharges of pollutants to surface water. |
| Clean Air Act | Protects ambient air quality through pollutant source control. It |
| (42 USC 7401-7671; 40 CFR 50 & 61) | establishes National Ambient Air Quality Standards (NAAQS) & |
| · · · · · · · · · · · · · · · · · · · | National Emission Standards for Hazardous Air Pollutants |
| • | (NESHAPs). |
| Ct t D | |
| State Regulation | Regulatory |
| (Statute – Citation) | Regulatory Description |
| (Statute – Citation) Drinking Water Regulations | Regulatory |
| (Statute – Citation) Drinking Water Regulations (10 CSR 60-4) | Regulatory Description Provides regulations and MCLs for public water supplies. |
| (Statute – Citation) Drinking Water Regulations (10 CSR 60-4) Water Quality Standards | Regulatory Description Provides regulations and MCLs for public water supplies. Establishes the classifications and beneficial uses of groundwater |
| (Statute – Citation) Drinking Water Regulations (10 CSR 60-4) Water Quality Standards (10 CSR 20-7) | Regulatory Description Provides regulations and MCLs for public water supplies. Establishes the classifications and beneficial uses of groundwater and surface water in Missouri. |
| (Statute – Citation) Drinking Water Regulations (10 CSR 60-4) Water Quality Standards (10 CSR 20-7) Water Pollution Control Regulation | Regulatory Description Provides regulations and MCLs for public water supplies. Establishes the classifications and beneficial uses of groundwater and surface water in Missouri. Establishes criteria for disposal of wastewater into public |
| (Statute – Citation) Drinking Water Regulations (10 CSR 60-4) Water Quality Standards (10 CSR 20-7) Water Pollution Control Regulation (10 CSR 20-1 thru 20-6) | Regulatory Description Provides regulations and MCLs for public water supplies. Establishes the classifications and beneficial uses of groundwater and surface water in Missouri. Establishes criteria for disposal of wastewater into public treatment facilities. |
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Notes:

1. TBC: To be considered

General and combined ARARs for Compliance with applicable Missouri State Rules for the entire State of Missouri for the Air Pollution Control Program (APCP);

10 CSR 10-6.010, Ambient Air Quality Standards;

10 CSR 10-6.050, Start-Up, Shutdown, and Malfunction Conditions;

10 CSR 10-6.060, Construction Permits Required (this would include any substance requirements of the rule such as monitoring).

10 CSR 10-6.065, Operating Permits (this would include any substance requirements of the rule such as record keeping);

10 CSR 10-6.075, Maximum Achievable Control Technology Regulations;

10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants;

10 CSR 10-6.110, Submission of Emission Data, Emission Fees and Process Information (this would include any substance requirements of the rule such as emission data);

10 CSR 10-6.130, Controlling Emissions during Episodes of High Air Pollution Potential:

10 CSR 10-6.170, Restriction of Particulate Matter to the Ambient Air beyond the Premises of Origin;

10 CSR 10-6.180, Measurement of Emissions of Air Contaminants; and

10 CSR 10-6.300, Conformity of General Federal Actions to State Implementation Plans.

Ambient concentrations of volatile organic compounds should be less than the respective Acceptable Ambient Levels (AAL) when measured at the site boundary. The AAL is the maximum ambient air concentration of a chemical at site's boundary that is not expected to cause any adverse human health effects during a defined period of exposure. The Air Pollution Control Program (APCP) uses the AALs as guidance to determine permit limits based on potential AAL exceedances. The Air Program staff recommends performing an ambient air analysis of impacts for these pollutants. If dispersion modeling cannot confirm that impacts are less than the AALs, monitoring should begin, accompanied by site control plans if exceedances should occur.

Modeling for National Ambient Air Quality Standards (NAAQS) and the APCP AALs of any Hazardous Air Pollutants (HAPs) must be done at worse-case conditions (this would include emergency release events which bypass all air pollution control equipment) following the Air Modeling Protocol approved:

- a. Concentrations are to be evaluated at the property boundaries by APCP Technical Support Section;
- b. Additional actions are required for exceeding the NAAQS or AALs (at 1 in 100,000 risk level);
- c. Modeled values within 20% of either NAAQS or AALs will require pre- and post-ambient monitoring;
- d. Adequate testing and monitoring as approved by APCP to assure compliance with all applicable requirements; and,
- e. If potential emission levels trigger a "major" review (100 tons per year of any regulated pollutant based on worst-case hourly rate 8760 hours), additional public participation requirements would be required and a separate case-by-case air pollutant control equipment (Best Available Control Technology (BACT)) evaluation.

Please incorporate and include the above listed state ARARs into the proposed time-critical removal action for the Hayford Bridge Road Groundwater Site, Operable Unit 3. Though this may not be an exhaustive list, to facilitate and expedite your request, the most pertinent state

Mr. Craig Smith Page Five

ARARs was listed. In no way does this list, if incomplete, hold harmless or free any party or parties from compliance with all Missouri laws in this or any future remedial action regardless of location within the state's boundaries.

We appreciate the opportunity to participate and provide guidance in this process. If you have any comments or questions regarding this information, please contact me at (573) 751-1738. My mailing address is Department of Natural Resources, Hazardous Waste Program, P.O. Box 176, Jefferson City, MO 65102-0176. Thank you for the opportunity to identify these State of Missouri ARARs.

Sincerely,

HAZARDOUS WASTE PROGRAM

andice H. M. Hice

Candice McGhee

Project Manager Superfund Section

CM:js

c: Jessica Blome, Attorney, AGO

Audrey Asher, Senior Counsel, EPA, Region VII