GWOU ADMINISTRATIVE RECORD
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MISSOURI DEPARTMENT OF CONSERVATION

Headquarters

2901 West Truman Boulevard, P.O. Box 180, Jefferson City, Missouri 65102-0180

Telephone: 573/751-4115 ▲ Missouri Relay Center: 1-800-735-2966 (TDD)

JOHN D. HOSKINS, Director

April 30, 2003

Ms. Pamela Thompson
Project Manager
Weldon Spring Site Remedial Action Project
7295 Highway 94 South
St. Charles, Missouri 63304

Dear Ms. Thompson:

Thank you for the opportunity to review the draft proposed plan for groundwater contamination remediation at Weldon Spring. We have a serious general concern about the selection of the Monitored Natural Attenuation alternative, and several specific concerns about proposed trigger points and monitoring processes.

The public entrusts to the Missouri Department of Conservation the care and management of the land and its resources surrounding the Weldon Spring Site Remedial Action Project (WSSRAP). These public areas, known as the August A. Busch Memorial Conservation Area and the Weldon Spring Conservation Area, are enjoyed by half a million visitors per year. As population and development continue to grow in St. Charles and surrounding counties, it is expected that public use of these conservation areas will also grow. We take our responsibility to ensure the safety and enjoyment of these visitors very seriously.

Groundwater underlying these two areas is an essential component of their resource health. Contamination that lasts for 100, 500, or 1,000 or more years compromises our ability to use the natural resources in a way that ensures our visitors' safety and health. We are well aware of calculations that show little risk at anticipated exposure levels. However, we are also aware that such calculations may change as more is learned about specific contaminants, and that conditions over time may increase exposure levels. All these factors require that groundwater contaminants be eliminated to the extent technology makes possible.

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We would greatly appreciate specific responses to the following questions:

1. Based on Table A.1, the cost of Alternative 3 will be about $20 million over a 100-year period while the cost of *Alternative 8: In-situ Treatment of TCE Using In-Well Vapor Stripping* is about $43 million over a 100-year period, and the cost of *Alternative 9: In-situ Chemical Oxidation (ICO) of TCE Using Fenton-Like Reagents* is estimated to exceed $9 million (there was no indication of whether this was over a 100-year period or just capital costs). Why was natural attenuation selected over the treatment alternatives when their costs don't appear to be out of line in relation to the non-treatment alternatives? (It was not clear from Table A.1 what the costs of Alternatives 4 or 7 would be.)

2. If a treatment alternative were used, how much sooner would the TCE and other chemicals of concern be reduced in the groundwater and would this reduce the costs of the treatment alternatives to be comparable or more favorable than the non-treatment alternatives?

3. In addition, if the period of exposure to recreationists, workers, and so on, were reduced, would this reduce the risk?

4. In the future, these chemicals may be determined to be more toxic to humans and/or ecosystems than presently believed. If so, will the level of risk need to be reevaluated and treatment then implemented? Will it not be more costly to do this at some future date than at the present?

Monitored Natural Attenuation fails to adequately address contaminant levels affecting property owned and managed by the Missouri Department of Conservation. We favor a more aggressive treatment regimen to remove the contamination for the health and safety of future generations. Specifically, groundwater entering Department property that has been degraded from activities at the WSSRAP site must meet EPA drinking water standards. Even with Institutional Controls in place, we cannot guarantee there will be no exposure to groundwater for the next 100, 500, or 1,000+ years given the high number of recreational visitors and their diverse interests and uses.

We would consider deviating from this standard and agreeing to the Monitored Natural Attenuation alternative under the following circumstances:

- If the state and federal agencies agree that groundwater remediation is not technically feasible at this time.
- If the state and federal agencies agree to revisit the issue as new technologies become available.

- If the state and federal agencies collect data that demonstrates to our agency and the public that the contamination is not spreading or impacting ecosystems on Department property.

Additionally, we question the efficacy of several trigger points and contingency actions in your document, and request the following changes:

- When TCE levels exceed drinking water standards (5 micrograms per liter) in any unweathered zone well, the ICO hotspot or alternative remedial action should be initiated regardless of the TCE concentrations in the plume. A trigger point of 20 ug/l, as indicated in your document, is unacceptable, and remedial action should <u>not</u> be dependent on contaminant levels in the plume.
- Similarly, at Burgermeister Spring, remedial alternatives should be implemented when TCE levels reach 5 ug/l, regardless of concentrations in the plume.
- Quarterly sampling for TCE should be conducted at all monitoring locations, rather than semi-annually as indicated in the document.
- At Burgermeister Spring, the trigger point for uranium should be 100 pico-Curies per liter, not 300 pCi/l as your document indicates.
- Additional monitoring wells whose number and placement coincide with recommendations made by the Missouri Department of Natural Resources should be created to determine the current vertical and horizontal extent of contamination, and to confirm plume locations and attenuation.

I would like to emphasize the need to aggressively treat and remove as much groundwater contamination as possible before it reaches Department property. By allowing contaminated groundwater to continue to spread to this high use public area, the Department of Energy is effectively removing the value of the groundwater resource from our property. Compensation for the loss of this valuable resource could well exceed the cost to actively treat and eliminate the contamination.

We respectfully request that the "Proposed Plan for Final Remedial Action for the Groundwater Operable Unit at the Chemical Plant Area of the Weldon Spring Site" be revisited with these concerns in mind. Thank you for the good progress made to date, and your willingness to address and resolve remaining contamination problems.

Sincerely,

John Hoskins

JOHN D. HOSKINS
DIRECTOR

c: Senator Christopher S. Bond
Senator James Talent
Representative Todd Akin
Representative Kenny Hulshof
Missouri Conservation Commission
Weldon Spring Citizens Commission
Steve Mahfood, Department of Natural Resources
Gale Carlson, Department of Health and Human Services
Chris Bigelow, State of Missouri Washington Office