GWOU ADMINISTRATIVE RECORD
SECTION TITLE:
GW-500-502-1.05

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Mel Carnahan, Governor • Stephen M. Mahfood, Director

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

November 10, 1999

Mr. Mike Sanderson
Director of Waste Management Division
U.S. Environmental Protection Agency, Region VII
905 N. 5th Street
Kansas City, KS 66101

RE: Statement of Remaining Issues of Dispute for the Groundwater Operable Unit, Weldon Spring Site Remedial Action Project, Weldon Spring, Missouri

Dear Mr. Sanderson:

In accordance with the agreed to procedure for resolution of dispute, we are providing statements to clarify the remaining issues, the basis for our position, and the proposed changes necessary to satisfy our concerns on each issue. The remaining issues of dispute for the Groundwater Operable Unit at this site are as follows:

Issue #1

The Department of Energy has failed to adequately address remediation of contaminated groundwater existing at or emanating from their site in the Proposed Plan.

Basis
The groundwater system beneath the DOE Weldon Spring Site Remedial Action Project (WSSRAP) site is considered a potentially useable potable aquifer according to the Department of Energy, the Environmental Protection Agency and the Missouri Department of Natural Resources. According to Laws and Regulations covering this type of situation, the cleanup standards that are to be met are the drinking water standards [121(d)(2A)].

A complete development of the alternatives to remediate contaminated groundwater at the site must be accomplished before a thorough and accurate comparison can be made and a preferred remedy selected. The capability of modeling and predictive models is limited due to the karst-like nature of the hydrogeology at this site. To compensate, a pilot-scale pump and treat system should be developed and tested in the field. If necessary, this system should include artificial recharge to reverse the effects of dewatering. Data could then be collected from this pilot project, which in turn could be used to evaluate the feasibility of a more complete remediation of the aquifer.

Alternatives including the passive treatment of contaminated groundwater that presently discharges off-site have not been explored. Other DOE sites are using such technology to

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passively remediate uranium and nitrate contaminated groundwater to reduce the effects on the environment. The fact that Burgermeister Spring discharges a large percentage of the contaminated groundwater offsite lends its self to the practicability of installing a passive treatment system. Such systems can be low cost/low maintenance alternatives to more active means and must be considered.

Proposed Changes to Selected Remedy
Fully address existing groundwater contamination on site as well as contamination discharging offsite. The selected remedy must address current conditions as well as future discharges. Implement a pilot-scale pump and treat system. The remedy could include installation of a passive treatment system at points discharging contaminated groundwater as a component.

Issue #2

The Department of Energy inappropriately proposes to waive the Applicable or Relevant and Appropriate Requirements (ARARs) for water quality contaminants [2,4-Dinitrotoulene (2,4-DNT), nitrate, and uranium] for the entire site. Removal of contaminants is technically practicable in some areas or zones at this site. In addition, the proposed waiver does not provide a remediation goal if the ARARs are waived.

Basis
MDNR does not consider it technically impracticable to remediate 2,4-DNT, nitrate, or uranium in certain contaminant zones at this site. Based on information provided by DOE, some contaminant zones can be remediated to meet ARARs in a reasonable specified time. Failure to remediate the groundwater at this site has allowed contamination to migrate off-site and discharge at publicly accessible areas.

Proposed Changes to Selected Remedy
In line with the proposed remedy for Issue 1, the remedial action should include the installation of a pilot-scale pump and treat system to investigate whether waiver of ARARs is appropriate. If after evaluating the pilot-scale pump and treat system's performance and meeting ARARs is determined not to be practicable for all areas of contamination, alternate concentration limits must be developed as provided for in CERCLA section 121(d)(2)(B)(ii). At a minimum, contaminant discharges should be treated using a passive treatment system.

Issue #3

The Department of Energy has failed to fully and accurately address the Institutional Control component of the remedy they have identified for the site in the Feasibility Study or Proposed Plan.

Basis
The DOE has not clearly evaluated or assessed institutional controls; determined how this component provides for the long-term protection of human health and the environment at the site; or provided a definitive and enforceable plan.

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Proposed Changes to Selected Remedy
The DOE must address and include; the purpose for the institutional controls, types of control, associated costs, long-term monitoring of compliance, a demonstration of the effectiveness of implementability, mechanisms of enforcement and the mechanism for funding long term oversight and necessary future remedial actions. The plan should include the ability to adapt if conditions change over time for the future and must be acceptable to the Missouri Department of Natural Resources.

Issue #4

The Department of Energy has failed to provide sufficient detail on how the Groundwater Operable Unit remediation and monitoring interface with monitoring and maintenance of the onsite disposal cell.

Basis
The selected remedy does not provide details, comparisons, and assurances on the interface between the groundwater monitoring and action leakage rate plan. In addition, DOE's proposal for action leakage rates for the cell is in adequate. The proposal is not in accordance with design values that the State has applied to other similar sites using U.S. Environmental Protection Agency guidance; contains inadequate factors of safety; lacks detail on leachate sump design and monitoring; and does not include the post-closure monitoring plan and action response plan.

Proposed Changes to Selected Remedy
The selected remedy must include a monitoring plan that differentiates how monitoring will distinguish between exiting contamination in the groundwater and possible leakage from the onsite disposal cell. To accomplish this a reasonable Action Leakage Rates must be developed for the onsite disposal cell along with a stepped approach plan to follow if action rates are triggered.

The Missouri Department of Natural Resources looks forward to resolving these issues in a timely manner. I will soon be contacting Gene Gunn and Steve McCracken soon to review options to address these issues as outlined in the process. If you have any questions regarding these issues in the interim, please do not hesitate to contact me at (573) 751-0763.

Sincerely,

HAZARDOUS WASTE PROGRAM

Robert Geller

Robert Geller, Chief
Federal Facilities Section

RG:le

c: Steve McCracken, DOE/WSSRAP
Dan Wall, EPA Region VII

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bc: Weldon Spring Citizens Commission
Daryl Roberts, Missouri Department of Health
James Fry, Missouri Department of Conservation
Ron Kucera, MDNR/Director's Office
Scott B. Totten, MDNR/DEQ
Ed Knight, MDNR/WPCP
Jerry Lane, MDNR/PDWP
Robert Eck, MDNR/SLRO
Jim Williams, MDNR/DGLS
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