402-1.03

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WELDON SPRING SITE REMEDIAL ACTION PROJECT
MK-FERGUSON CO., INC. WO 3589 (636) 441-8086
7295 Highway 94 South
St. Charles, MO 63304

Document Number: 88357

▸▸Document Type: FX-MDNR-DOEW

Originators DCN:

▸▸SUBJECT DRAFT INTERIM RECORD OF DECISION (ROD) FOR REMEDIAL ACTION FOR THE GROUNDWATER OPERABLE UNIT AT THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE (SEPTEMBER 2000)

▸▸AUTHOR GELLER, ROBERT ▸▸TO MCCRACKEN, STEVE ▸▸DATE 09/29/00

▸▸SUBJECT CODE/WORK PACKAGE NUMBER 03010

REFERENCED DOCUMENT(S)

ACTION ITEM TRACKING

INITIATE ACTION ITEM

INDIVIDUAL ASSIGNED TO ACTION DEPARTMENT

ACTION REQUIRED

DUE DATE // ACTION ITEM LOG NUMBER

CLOSE ACTION ITEM

ACTION ITEM LOG NUMBER INITIATING DOCUMENT DIN

COMPLETION DATE APPROVAL

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88357

- ☐ URGENT
- ☐ Priority
- ☐ Routine
- ☐ As Requested
- ☐ FYI

To: DOE
Mr Steve McCracken
FAX: 636 447-0803 Phone:

From: Bob Geller by Vickie
DNR, DEQ, HWP, HFS
FAX: 573 526-5268 Phone: 573-751-3907

SUBJECT:

COMMENTS: These are the specific comments on the draft Interim Record of Decision

RESPONSE EXPECTED:

Total # of pages sent (including transmittal sheet): 6

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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

September 29, 2000

Mr. Steve McCracken, Project Manager
United States Department of Energy
Weldon Spring Remedial Action Project
7295 Highway 94 South
St. Charles, MO 63304

RE: DRAFT INTERIM RECORD OF DECISION (ROD) FOR REMEDIAL ACTION FOR THE GROUNDWATER OPERABLE UNIT AT THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE (September 2000)

Dear Mr. McCracken:

The Missouri Department of Natural Resources (DNR) reviewed the above referenced DRAFT decision document. Attached please find the specific comments referenced in the Department Director's September 27, 2000, letter.

The DNR concurs with this Interim ROD and provides these comments to clarify issues of concern with language in the draft document. We recognize that due to the short time frames for our review and input that neither the Department of Energy nor the Environmental Protection Agency may be able to incorporate these changes.

If you have questions about our concerns and comments please feel free to contact Larry Erickson of my staff at (573) 751-6838.

Sincerely,

HAZARDOUS WASTE PROGRAM

Robert Geller

Robert Geller, Chief
Federal Facilities Section

Enclosure

RG:vp

c: Dan Wall, EPA Region VII
Weldon Spring Citizens Commission

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Specific Comments

for the

DRAFT INTERIM RECORD OF DECISION FOR REMEDIAL ACTION FOR THE GROUNDWATER OPERABLE UNIT AT THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE (September 2000)

Comment number) Page, Paragraph

Comment 1) iii,2 Last sentence, strike the word "any" in remediating any remaining contaminants of concern.

Comment 2) iii,5 Change the term "remedy" to "remedial action"

Comment 3) iv,2 Reword the second sentence to be more generalized, striking the contaminant names, nitrate, nitroaromatic compounds, and uranium.

Comment 4) iv,2 Strike the last sentence. This sentence predetermines what the final ROD will contain. The final ROD may contain other components not described in this sentence.

Comment 5) iv,4 The last sentence describes TCE as the highest contributor to potential risk from groundwater at the site. Is this an accurate statement considering the risk associated with contaminated groundwater derived from the site and upstream of springs 6301and 5304. If not accurate, the sentence should be deleted or changed to reference the physical plant site only. Also note that this risk for TCE was calculated based on a 9000 µg/l concentration and reference the concentrations found at the site presently.

Comment 6) 1,7 It is our understanding that remediation of all source areas has not yet been completed. Also, referring to Burgermeister Spring at this point is not understood.

Comment 7) 3, Fig. 2 This figure uses a couple of acronyms not defined in the text or in the list of acronyms and abbreviations on page xi; WSOW and WSCP.

Comment 8) This figure does not depict all contaminated structures which have been removed. Also, extensive remediation in areas adjacent to pits, ponds or structures has been implemented. These areas should also be indicated as source areas.

Comment 9) 5,1 Missouri is not currently a signatory to the FFA. While this is being contemplated and DNR anticipates having significant input into development of the final ROD, the IROD should reflect the current situation.

Comment 10) 7,1 Insert the following sentence immediately before the last sentence: "The final ROD will also be developed consistent with NPC criteria including State and community acceptance."

Comment 11) 7,2 Insert the following sentence at the end of the paragraph: "Also, additional data collected in the Interceptor Trench field study will be evaluated to determine the potential for uranium contaminated groundwater remediation.

Comment 12) 10,3 DNR identified six (rather than four as DOE states) primary items to be addressed during the dispute process. Issues included performance goals for the proposed TCE treatment process, recognizing the groundwater standard for Uranium of 30 pCi/l as an ARAR, and long term oversight funding as a part of institutional controls and long term monitoring. Item (4) as presented in the IROD also mischaracterizes DNR's position as being related to the Action Leakage Rate only. The dispute item actually references the interaction of GWOU remediation and monitoring with monitoring and maintenance of the Disposal Cell.

Comment 13) 10,4 Insert the words "process and" in before the word "type" to read "...in the final ROD regarding the process and type of institutional controls and enforcement mechanisms.

Comment 14) 10,5 DNR does not necessarily maintain that the groundwater can be "effectively" extracted and treated. Our position is that groundwater can possibly be removed and treated and that DOE has not effectively demonstrated that it can or can not.

Comment 15) 11,1 DOE should consider "passive" as well as active remediation in further evaluations. Also, there is no Section 10.7 in our copy.

Comment 16) 13,4 We believe that existing data is insufficient to make the broad statement indicated in Sentence 3.

Comment 17) 14,1 The term "Weldon Spring site" is confusing. Does this include the Quarry area and, if so, what about the alluvial aquifer there. We also take issue with the last sentence of this paragraph that seems to contradict statements made earlier in the paragraph (on page 13). Our position is that this shallow portion of the aquifer is sufficient for household uses.

Comment 18) 14,2 Figure five should be dated and this paragraph should note that the groundwater divide is moving as a result of climatic and remediation events.

Comment 19) 14,3 This paragraph contains several statements which we do not agree with. First, not all groundwater under the site discharges at SP6301 and while dilution does occur, not all discharged contaminants are physically or chemically degraded. We also disagree that this spring represents the northern-most extent of groundwater transport. The extent has not yet been defined and the spring is not necessarily the appropriate monitoring endpoint.

Comment 20) Change the word karst to karst-like or other appropriate terminology.

Comment 21) As with the previous comment we do not agree that the extent of groundwater transport has been identified by the springs in the Southeast Drainage. It does not seem

appropriate to reference data from a single well to draw conclusions about a "hydrogeologically complex" setting.

Comment 22) 14,5 We do not agree that 10 gpm is a "low value from a pump and treat perspective."

Comment 23) 18, Section 4.1.2, 1 Please state that full recovery of water levels may be due to other site conditions like recent raffinate pit dewatering and dry seasonal effects.

Comment 24) 18, Section 4.1.4,1, Bullet two Groundwater north of the drainage drains to the Mississippi river.

Comment 25) 20, Section 4.2,1 This paragraph describes the location of the TCE groundwater contamination. The WSTA is not indicated or marked on the referenced figure 5. A map showing all wells with TCE detections should be included in this document since this IROD deals mostly with the TCE contaminated groundwater.

Comment 26) 20, Section 4.2, Table 1 Please list all wells that show detections of TCE. MW-4001, 3023, 2032, 2013, and others have shown TCE detects in the past.

Comment 27) 22, Section 5.1.2,4 How can DOE assure that Missouri Department of Conservation will continue to maintain the area as recreational?

Comment 28) 22, Section 5.1.3 DNR objections to the statement that Burgermeister Spring is a major discharge point for groundwater originating at the Ordnance Works Area. DNR would agree that this spring is a major discharge point for shallow groundwater migrating from the Chemical Plant Area.

Comment 29) 23, Section 5.1.4 Strike the word ever in the sentence "...in the unlikely event groundwater use were to ever occur."

Comment 30) 23, Section 5.2, 1 Can the DOE assure that DOD and the State of Missouri will maintain the future land use as recreational?

Comment 31) 23, Section 5.2, 3 The first sentence should be corrected. The recreational visitor scenario was based on an intake of 0.4 L/day (or approximately 2 cups). The quantity should be expressed in liters, or both liters and cups

Comment 32) 27, Section 7.1, 4 Strike the sentence "However, this groundwater use is considered unlikely."

Comment 33) 29, Section 7.4, 2 Move the word "and" from after implementability to before implementability to read "Uncertainties with the effectiveness and implementability of this..."

Comment 34) 33, Section 8.1, 1 Insert a comma between treatment and engineering.

Comment 35) 33, Section 8.2, 2 Please add that the calculation of 30-70 years was based on a non-optimized pump and treat system.

Comment 36) 34, Section 8.3, 2 This IROD states that TCE source was removed. Please state how and when this source was removed and where it was disposed of.

Comment 37) 37, Section 9, 2 Please state that performance monitoring will include the monitoring of possible bi-products of the reaction and other geochemical properties.

Comment 38) Also, state that because of the innovative nature of this technology, combined with the complex hydrogeology of the site, the implementation of the design would be monitored for actual field versus expected performance. Rounds of chemical application would continue to be applied beyond design specifications for so long as the application is reducing the TCE concentrations in an effective manor (i.e. further reduction of TCE concentrations is exhibited and is not considered asymptotic). Conversely, the chemical application would be discontinued or terminated if reduction of TCE is not exhibited and performance is asymptotic upon full implementation of the design specifications for application rounds.

Comment 39) 40, Section 10.2.2, 1 The proposed [illegible] technology involves injection of materials into the subsurface. Will DOE explore Underground Injection Control requirements?

Comment 40) A-1, General Comment DNR has not evaluated the complete Public Comment Record in detail and does not agree or disagree that the information included in this appendix addresses all significant comment received during the review period.

Comment 41) A-4, Bullet one Please list the names of each radioactive contaminant that was sampled and their associated background levels. . To DNR's knowledge background has not been established for all radioactive contaminants of concern.

Comment 42) Groundwater upgradient of Burgermeister Spring (SP6301) and springs in the Southeast Drainage (SP5304) is contaminated with uranium above the 30pCi/l standard. Please define extent of this groundwater contamination.

Comment 43) A-4, Bullet three DNR does not agree that the impacted shallow groundwater is characteristic of low yields. Dr. Williams' letter clearly states otherwise for at least a portion of the aquifer that pump test data has been conducted.

Comment 44) A-5, Bullet one DNR does not agree that there is enough data collected to warrant considering TI waivers at this time. Additional studies are planned as part of this IROD to help all parties determine the practicability of remedial technologies.

Comment 45) A-5, Bullet two Strike this whole paragraph or present supporting scientific evidence that show no impact to the drinking water supplies.