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Mel Carnahan, Governor • Stephen M. Mahfood, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

P.O. Box 176 Jefferson City, MO 65102-0176

June 21, 1999

Ms. Sharon Cotner, Project Manager
Formerly Utilized Sites Remedial Action Project
Department of the Army
St. Louis District, Corps of Engineers
9170 Latty Avenue
Berkeley, MO 63134

RE: Review Draft Post Remedial Action Report (PRAR) for the St. Denis Bridge Area

Dear Ms. Cotner:

The Federal Facilities Section (FFS) has reviewed the draft Post Remedial Action Report (PRAR) for the St. Denis Bridge Area. This is the first PRAR submitted by the U.S. Army Corps of Engineers (USACE). FFS has made both general and site specific comments on this PRAR. FFS looks forward to reviewing future PRAR as areas in the North County and downtown are completed by the USACE.

1. In general the level of detail included in the PRAR for the St. Denis Bridge Area was satisfactory for review by FFS. There does need to be consistency in the document. One example is the fact that the clean up criteria is listed in several areas of the report. But if you look at page 6 it is stated, "The concentration-based remedial action guidelines set forth in the EE/CA are 15 pCi/g for Ra-226 and Th-230 (subsurface soils below 15 cm depth) and 50 pCi/g for U-238 for all depths." Then look at page A-3, it is stated "The site specific cleanup levels were 5 pCi/g Th-230 in the top 15 cm of soil and 15 pCi/g of Th-230 in any 15 cm layer of soil below that." Another example is the differences between the Sum-of-Ratio (SOR) equations found on page B-3 and on page 6.
2. The report should include results from all environmental monitoring done for the specific area. That would include, but is not limited to, radon monitoring, air monitoring, and stormwater monitoring. During a site visit on October 22, 1998, I didn't observe any air monitoring being done by Bechtel, Inc. I was told by Bechtel, Inc. and the U.S. Army Corps of Engineers (USACE) that the air monitoring had been done. The monitoring data was not included in this report, just a statement on page A-5 that stated "The air results were below criteria."
3. The section "Chronology of events" outlines the sequence of events which is good, but I would also like to see information on any event which caused a change in any health and safety procedure or excavation boundaries, etc. An example would be that during the Department of Energy's work on the West End, they required workers at the Eva Road Load-out who work in the back of the trucks removing the liners to wear respirators because the air monitoring indicated an exceedence of the 10% DAC limit. Another example would be finding a drum filled with an unknown material or unusual weather event which stops work. Please provide a brief description of how those events were handled by the contractor or USACE. While observing the work at the St. Denis Bridge on October 22, 1998, I observed the excavator operator stop work because of the constant movement of personnel around the excavator. How was that handled to insure a safe work environment? See comment #6 for an outtake from FFS site notes from the October 22, 1998, visit.

4. Page 12, Table 1, Summary of Final Status Samples Results from the St. Denis Street Bridge Area; I used the equation on page 6 to calculate the gross SOR for several of the sample points. I couldn't get the same results as listed in the gross SOR column in table 1. For SVP00060 I calculated an SOR_G of 0.22 pCi/g while the table has an SOR_G of 0.28 pCi/g. The problem was that I didn't include the greater of Th-232 or Ra-228 in the calculation. A solution to this problem is to include a sample calculation in the document.
5. Page A-3 & A-4; several references are made to elevated levels found on the east bank after the initial remediation effort. What radioisotopes and levels were detected which caused the additional excavation work? The preliminary samples corresponding to the elevated readings should be included in the text along with which final samples corresponding to those same areas. The information may be in the tables in the back of the report but the maps with the preliminary sample locations are not clear. Attachment A has two maps that give different locations for SVP0933 and SVP0934. An example of what could be included in the text, "The preliminary gamma spec data provided after page A-9, showed several samples which exceeded the Th-230 cleanup criteria, specifically SVP0603 19.12 pCi/g, SVP0606 21.22 pCi/g, and SVP0832 21.41 pCi/g. After additional excavation additional samples were taken and the new results are SVPXXXX 15 pCi/g as shown in Table B-1. There are different concerns if the levels detected were 17 pCi/g (including background) or 300 pCi/g (including background). Table B-2 lists several samples which have a net SOR greater than 1.0. Do those samples from Table B-2 correspond to the areas with elevated readings?
6. Page A-5, Second full paragraph; during a site visit of October 22, 1998, I observed both the Bechtel contractor and the city's contractor working in the same area. Access to the site was not being controlled as stated in the paragraph. Comments from FFS personnel site visit of October 22, 1998:

Activities & Observations: "...When I came back at 12:35 p. m. to the site, work had started up again. Excavator was trying to load a large piece of concrete/rip-rap into a truck. The piece would not fit so he removed the piece and broke it up by driving over it. He then left the piece on the road and removed some more of the concrete/rip-rap. At this time actual city employees showed up and started working to hook up a fire hose. They had no safety equipment. The city's contractor had hard hats but no safety glasses, etc. The city's contractors were working in the vicinity of the RAD work so they could be breathing dust generated by the excavation work. The hose was run behind the excavator. The city employees were moving behind the excavator so the operator quit working and the truck was tarped and shipped off. It was not scanned out. The site was totally out of control because of all the different contractors on-site. No rope or fencing had been put in place. There was no air monitoring to speak of around the site. There was no dust control by any of the contractors. In my opinion any contamination that may have been in or around the concrete is gone by dilution or lost down Coldwater Creek. I saw the excavator take up some debris then drop it back down the bank. I left the site and drove over to the HISS trailer to discuss this with Bechtel and/or USACE. Burns (Bechtel) indicated he knew the site was not under strict control. This is due to all the different contractors working on the site. Also the city's contractors had left large amounts of debris in the area and had not done all the work they said they would do before Bechtel came into work. The contractor had not broken up all the concrete which should have been done and would aid in loading trucks. Burns also indicated that field screening was and will continue to be done and it had not registered anything over 1 to 3 pCi. Bechtel had also done some sampling, which didn't show anything to worry about with respect to health and safety."

Ms. Cotner
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Page three

The document doesn't accurately represent site conditions during the remediation efforts at the St. Denis Bridge Vicinity Property. The report should include any data that was taken to verify that there were no health & safety concerns.

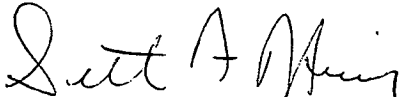
7. Page A-5; Air monitoring data should be included in the report. The report indicates that the air results were below criteria. The only criteria (DAC limit) listed in the report was for Th-230 7.0×10^{-12} $\mu\text{Ci/ml}$. What about the DAC limits for Uranium and Radium?
8. Page A-5; "Measures were also taken to minimize the potential for migration of radioactive contaminated material to adjacent, uncontaminated areas of the site and Coldwater Creek." Please include examples because many of the measures to be implemented were not done at the site. Comments from FFS personnel site visit of October 22, 1998:

"...Because of the slope and condition of the bank there is no way to put the plastic down that Bechtel said they would in the readiness review meeting." The plastic was to be used to control erosion from the bank into Coldwater Creek but because of safety concerns it was not done.
9. Page A-5; "All equipment was surveyed and if above the release criteria, decontaminated before it was removed from the controlled area." Was any equipment required to be decontaminated and how was it done to avoid spreading contamination? The area was not set up like a normal hazardous waste site, e.g., support zone, CRZ, and exclusion zone.
10. Attachment A includes the results of the walkover scans performed at the St. Denis Bridge site along the west and east banks. Were the areas used to stockpile debris and load trucks also scanned before releasing the site? This question arises from the fact that concrete removed from the bank was dropped onto the ground so the excavator could break it up into smaller pieces.
11. Page 9, Section 5.4; Please clarify this paragraph, specifically this statement "Since no individual sample results (for composite samples) exceeded 1.0, further analysis of the three individual samples comprising the composite was not required." See page B-14, Table B-2, which has two individual samples (SVP0068 & SVP0073) where net SOR exceed 1.0. This fact is handled in two different ways in this report on page 9 and page B-7.
12. Page A-9; was the data on this page preliminary data acquired by Bechtel? Sample results SVP0832 and SVP0933 would cause an exceedence of the SOR less than 1.0 requirement. Does sample SVP0861 replace SVP0832? Was Thorium-230 the only thing that was analyzed for with these samples? Has Bechtel or USACE validated this data?

If you have any questions, or need further information, you may contact me at (573) 751-3087.

Sincerely,

HAZARDOUS WASTE PROGRAM



Scott F. Honig, Environmental Engineer
Federal Facilities Section

SH:g

c: Dan Wall, EPA Region VII
Eric Gilstrap, FUSRAP Field Office

Cataloging Form

{Technical/Project Managers fill in C through G, K through Q. RM completes other fields}

A. Document ID Number: Assigned by database 784

B. Further Information Required?: ☐

C. Operable Unit (Choose One):

USACE ☐
St. Louis Sites ☐
Downtown ☐
North County ☒
Madison Sites ☐
Inaccessible Areas ☐
PRP ☐
Oversight Committee ☐

D. Site (Optional):

SLDS VPs ☐
Mallinckrodt ☐
SLAPS ☐
SLAPS VPs ☒
CWC ☐
HISS ☐
Madison ☐

E. Area (Optional): St. Denis Bridge

F. Primary Document Type (Choose One):

Site Management Records ☐
Removal Response ☐
Remedial Investigation ☐
Feasibility Study ☐
Record of Decision ☐
Remedial Design ☐

Remedial Action ☒
Public Affairs/Community Relations ☐
Congressional Relations ☐
Freedom of Information Act ☐
Real Estate ☐
Project Management ☐

G. Secondary Document Type (see back of form): Correspondence

H. Bechtel Number: _____

I. SAIC Number: _____

J. MARKS Number(Choose One): FN: 1110-1-8100e ☐ FN: 1110-1-8100f ☐ FN: 1110-1-8100g ☐

K. Subject/Title: MDNR Comments on the Review Draft Post Remedial Action Report (PRAR) for the St. Denis Bridge Area

L. Author: Scott Noris

M. Author's Company: MDNR

N. Recipient(s): Sharon Cotner

O. Recipient(s) Company: PM-R

P. Version (Choose One): Draft ☐ Final ☒

Q. Date: 6/21/99

R. Include in the AR? ☒

S. Include in the AR? ☐

T. Filed as Confidential/Privileged? ☐

U. Document Format (Choose one):

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X. Associated with Document(s): _____