

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Mel Carnahan, Governor • Stephen M. Mahfood, Director

DIVISION OF ENVIRONMENTAL QUALITY

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

FEB 19 REC'D

February 16, 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: Preliminary Assessment Memorandum (PAM) review meeting notes,
January 12, 1999

Dear Ms. Cotner:

The Federal Facilities Section (FFS) attended a meeting on January 12, 1999, at the HISS trailer for a presentation and update by the USACE contractor on the PAM document. FFS has enclosed a copy of the notes developed by the state of Missouri personnel in attendance at the meeting (Missouri Hazardous Waste Program, Missouri Department of Health, and Division of Geology and Land Survey). The USACE should submit any discrepancies between their notes from that day and notes enclosed by MDNR for that day. There are also several issues MDNR had with comments made during the meeting. Those issues have been attached to the notes from the meeting along with a brief description of each issue. FFS expects the following items to be submitted under the PAM by February 26, 1999, for review; 1) PCOC list, 2) RGO or "PRG", and 3) Risk assessment with default and site-specific parameters, calculations, and actual data.

If you have any questions, or need further information, you may contact Mr. Scott Honig of my staff at (573) 751-3087.

Sincerely,

HAZARDOUS WASTE PROGRAM

Larry V. Erickson
Larry V. Erickson, DOE Unit Chief
Federal Facilities Section, HWP

LE:shg

Enclosure

c: Dan Wall, EPA

NOTES

DATE: February 2, 1999

SUBJECT: Preliminary Assessment Memorandum (PAM) review meeting @ HISS trailer, St. Louis, MO 10:00 AM January 12, 1999.

The United States Army Corp of Engineers (USACE) scheduled a meeting for January 12, 1999 at 10:00 AM to discuss the progress on the PAM. The PAM was initially developed during the development of the Final Sampling and Analysis Plan (SAP) for SLAPS. The data gathered during the additional sampling at SLAPS was to be used to support the PAM. The PAM is defined in the Final Sampling and Analysis Plan on page 17.... The PAM is a supplementary data evaluation process developed during the Technical Project Planning (TPP) meeting to support previous risk assessment evaluations for this site. Data collected during this sampling will be used for this evaluation process in the form of a memorandum. Definition of the nature, extent, fate and transport of Potential Contaminants of Concern (PCOCs) and performance of a pathway analysis form the basis for risk calculations. Data requirements to support risk calculations are dictated by two considerations: the risk exposure scenarios and the need for a statistically valid data set (capable of providing the appropriate confidence level) for each exposure pathway. Risk considerations also tend to be the primary criteria to define detection limits for the site-specific PCOCs. Radiological risks are well documented at SLAPS; however, risks to metal and chemical PCOCs are not well defined. Sampling to support the PAM will focus on collecting data specifically on organics and nonradioactive metals which may be present at the site and which have soil screening levels established. These data will be integrated with existing risk assessment data to confirm or modify existing information. This data will then be used to modify the contaminants of concern (COC) list and remedial guidelines at the site.... The task had been clearly laid out for the USACE and its contractors in the SLAPS SAP. This meeting was called by the USACE to provide regulators with an update on the PAM document. The meeting was attended by the following personnel from USACE, Missouri Department of Natural Resources (MDNR), U.S. Environmental Protection Agency (EPA), and Missouri Department of Health (MDOH).

1. Dave Crawford, USACE Kansas City District;
2. Sherry Gibson, SAIC;
3. Scott Honig, MDNR;
4. Joe Gillman, MDNR;
5. Jennifer Godsey, SAIC;

6. John Waddell, SAIC;
7. Dan Wall, EPA Region 7;
8. Angela Baker, MDOH;
9. Pam Holley, MDOH;
10. Chuck Hooper, MDOH;
11. Dennis Chambers, USACE St. Louis District;
12. Larry Erickson, MDNR; and
13. David King, SAIC.

The first part of the meeting was used to cover the upcoming Environmental Documentation for the North County sites under the FUSRAP project. This documentation will be used to develop the Record of Decision for the North County, e.g., SLAPS, HISS, SLAPS VP, HISS/Latty Ave. VP, and Coldwater Creek. There are four documents, which are currently being prepared by the USACE and its contractor.

Document	Schedule	Current Review Agency
Management Plan	Two weeks	Internal USACE
SLAPS Investigation Report	Feb. 15, 1999	Internal USACE
PAM	Feb. 15, 1999	SAIC
Feasibility Study	TBD	SAIC

Discussions on ARARs and land use are also required before development of the feasibility study and record of decision. By the end of April, the USACE would like to be ready to establish the milestones for Feasibility Study/Proposed Plan and Record of Decision for the North County.

The next part of the meeting was SAIC making their presentation on the PAM document. The handouts will be attached to this document. SAIC was directed by the USACE to prepare the PAM. SAIC first reviewed the Baseline Risk Assessment (BRA) published in November 1993 for the St. Louis sites. That review included not only the actual risk assessment calculations but also the data and assumptions used in the BRA. SAIC identified the following data gaps; 1) No background data for groundwater, 2) Insufficient soil background characterization, 3) The potential of lab contamination included in the assessment, and 4) Elevated detection limits above soil background or Maximum Contaminant Levels (MCLs). SAIC also pointed out that site conditions have changed as the result of remedial actions that have occurred in the North County (i.e., the West End, the North Ditch), since the original BRA. Additional chemical and radiological data has also been collected since the BRA to address the data gaps. The recent changes in toxicity information (Slope factors and reference doses) and new guidance made available on exposure parameter values. SAIC used the above mentioned information along with other available information in a site by site review of the areas evaluated in the original BRA to determine whether there was a need to reevaluate chemical and/or radiological risk for each area. After the review was completed it was determined that all sites would be reevaluated for this assessment because of all the changes and new information.

MDOH asked if this was a baseline risk assessment. SAIC/USACE indicated that it was not a baseline risk assessment but an assessment of current site conditions.

MDOH/MDNR both restated that during the TPP meeting in Kansas City it was stated that a BRA already existed but was incomplete in a few areas. The BRA should not be done again but a supplemental risk assessment could be done (PAM) to make it complete. The supplemental risk assessment should look at uranium as a metal, TCE, actinium and protactinium. The supplemental risk assessment should also look at any chemicals found during the sampling conducted under the SLAPS SAP.

MDOH then stated that the review process would be slowed down if the USACE submitted this new Baseline Risk Assessment because SAIC is using new values, e.g., toxicity, etc. that have not been accepted by the risk assessor's community. If this risk assessment changes the PCOC list then MDOH would be required to review and recalculate everything in the risk assessment. It would also require sending the document to EPA headquarters.

SAIC again stated that this was not a new baseline risk assessment but a risk assessment which looks at current conditions and includes Remedial Goal Options also known as Preliminary Remedial Goals, Potential Contaminates of Concern (PCOC) and ARAR screening. It was necessary to reevaluate the site because of all of the changes. All data, which would have been from an area, which had been remediated, was left out of the assessment. Also that the PAM would reference many things in the BRA.

EPA indicated that the information in the current PAM would eventually have to be reviewed by the MDOH.

MDOH indicated that there were several different documents where the information in the current PAM, i.e., exposure scenarios, pathways can be reviewed 1) new Baseline Risk Assessment, 2) include in Feasibility Study (FS) along with PRG calculations, 3) Residual Risk Assessment and finally 4) PAM.

MDNR stated that from the current look of the situation that the PAM document would more likely fit into the Feasibility Study as the no action alternative. SAIC increased the scope of the original PAM document which may have been necessary but could lead us down a pathway to a walkway situation for the USACE in the North County if the PAM is submitted as a separate document. It is necessary for MDOH to review any risk assessment done for FUSRAP either BRA, FS, PRG, residual risk assessment or PAM.

SAIC continued with their presentation by providing what would be found in the PAM and included tables with parameters used in the risk assessment. The surface soil and groundwater would be evaluated under a residential scenario while the subsurface soil as an industrial scenario. MDOH said it couldn't agree with or disagree with any of the values used today.

EPA wanted to move the process forward towards the Record of Decision, just review the necessary parts of the PAM. We currently have a BRA which shows a risk at the site exists.

MDNR requested sixty days to review the PAM once submitted with a meeting to

discuss issues at sometime in the future after receiving the document, approximately 30 days.

After numerous discussions which seem to cover the same topics over and over. EPA and USACE what to complete the current risk assessment under the PAM because the same parameters and methodology will be used in the current and the residual risk assessments (compare apples to apples).

SAIC will submit for review by regulators the "PAM" document. The document will be used to provide a summary of PCOC and RGO or PRG for that list of PCOC. The document will include the current site conditions risk assessment currently being developed by SAIC. The PAM document will no longer be an addendum to the BRA or a completely new BRA. The document will be an advanced portion of the Feasibility study allowing an early review of the parameters and methodology used in the risk assessment before the official feasibility study is issued by the USACE for review. SAIC and USACE will have to submit all the calculations and data used in the PAM to allow MDOH review and verify all calculations for EPA.

The meeting finished with a discussion of the initial ecological screening being performed by SAIC. The initial summary will be used to make decisions on whether a complete ecological risk assessment needs to be completed.

MDNR had several issues with what was said or indicated by the USACE and its contractors at this meeting.

1. USACE indicated that they were the lead agency and had final decision ability. This statement is incorrect because EPA has that final decision making ability. USACE is responsible for managing the cleanup, preparing documents, etc... and EPA with the help of MDNR review those documents and perform field oversight to make sure the citizens of Missouri are protected. In essence, the USACE is the PRP for the project
2. USACE described the north county sites as similar to those at SLDS. This is not correct because the use of institutional controls to leave significant levels of waste on site is not possible in North County. USACE may establish deed restrictions or other institutional controls at the downtown site because there is a willing party and they had some responsibility for the waste. Sites in the North County do not have willing parties, e.g., vicinity property, which had any responsibility in the process. These owners should not be tied down with institutional controls, e.g., deed restrictions placed on their property or contamination left on-site.
3. Task Force (St. Louis Site Remediation Task Force Report, September 1996) recommendation for cleanup guidelines were unrestricted use for SLAPS, HISS, and all vicinity properties. Thorium/radium 5 pCi/g (first 6"), 15 pCi/g (below 6"), and 50 pCi/g uranium (all depths). SAIC was looking at an industrial cleanup scenario for subsurface soil and residential cleanup scenario for surface soil and groundwater.

4. USACE talked about stabilization of the site. MDNR would need more information on what is included in stabilization of the site. Does that mean that the USACE is planning to leave large amounts of contaminated soil on site?
5. The USACE indicated that groundwater at the site was being segregated into an upper and lower hydrostratigraphic zone for SLAPS and HISS. The upper zone has been determined to be insufficient as a potable water source; therefore, no risk would be calculated for this zone.
6. The USACE suggested that the Ecological Risk Assessment for Coldwater Creek would suggest that anything upstream of Pershall Rd. is not a viable habitat area and there may not be flora/fauna impacted or requiring protection.
7. SAIC increased the scope of the original PAM document which may have been necessary but could led us down a pathway to a walkway situation for the USACE in the North County if the PAM is submitted as a separate document. This is based on the fact that several removal actions have been completed or are close to completion at SLAPS. If the radium pits area is completed before the completion of this risk assessment, enough concentration could be removed to reduce the risk to acceptable levels. MDNR is going to consider the PAM as an advance copy of various pieces of the Feasibility Study for North County.

Cataloging Form

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

A. Document ID Number: Assigned by database 930 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):

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): Health & Environment Assessment Correspondence

H. Bechtel Number:

I. SAIC Number:

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

MDNR Notes on the USACE Presentation of the

K. Subject/Title: Preliminary Assessment Memorandum (PAM) 1/12/99

L. Author: Larry Erickson

M. Author's Company: MDNR

N. Recipient(s): Sharon Cotner

O. Recipient(s) Company: PM-R

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

Q. Date: 2/16/99

R. Include in the ARF? ☒

S. Include in the AR? ☐

T. Filed as Confidential/Privileged? ☐

U. Document Format (Choose one):

Paper ☒
Electronic ☐

Photographic ☐
Audio-visual ☐

Cartographic/Oversize ☐
Microform ☐

V. Filed in AR Volume Number:

W. Physical Location (Choose One):

Central Files ☒
Records Holding Area ☐

Microfilm Vendor ☐
Department of Energy ☐

In ARF ☐
In AR ☐

X. Associated with Document(s):