153-EOA-EAM-0009
SL-1270

STATE OF MISSOURI

Mel Carnahan, Governor • David A. Shorr, Director

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF THE DIRECTOR

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

August 28, 1997

Mr. Steve McCracken
Project Manager, DOE
FUSRAP Office
8170 Latty Avenue
Berkley, Missouri 63134

Dear Mr. McCracken:

RE: St. Louis Airport Site (SLAPS) Interim Action Engineering Evaluation/Cost Analysis (EE/CA)

The Missouri Department of Natural Resources (MDNR) appreciates the opportunity to review and comment on the Interim Action Engineering Evaluation/Cost Analysis (EE/CA) for the St. Louis Airport Site (SLAPS) prepared and available for public review in August, 1997. MDNR acknowledges the DOE commitment to remedy the environmental legacy left in the St. Louis area since the 1940's by MED-AEC activities. The proposed action defined in the Interim EE/CA is an appropriate beginning of the long awaited remedial action at the SLAPS.

It is the department's understanding that the Interim Action EE/CA for SLAPS was developed to meet the following objectives: to provide a clean buffer zone between the main body of waste at SLAPS and Coldwater Creek; to protect Coldwater Creek from further uncontrolled runoff from SLAPS during storm events; and to demonstrate tangible progress at the site. The department, however, is concerned that the interim actions proposed properly fit into a long term plan for the total remediation of the site. Therefore, more information and details on the plans addressing the protection of the workers as well as the public and the environment are needed in the document, as well as a perspective of how the activities will relate to the final site remedy. Water management is also a critical issue for the department and the success of projects such as those proposed. MDNR would like more detail in the EE/CA regarding the management of groundwater, surface water and potential flood conditions along Coldwater Creek.

MDNR supports Alternative 3 in the SLAPS Interim Action EE/CA. This option proposes shipping all of the excavated material to a licensed out-of-state disposal facility. The high capacity loading facility and rail spur also proposed in Alternative 3 provide evidence of DOE's commitment to future long term, cost effective removal actions at the airport site and vicinity properties. MDNR's review and oversight of all the remedial activities along with DOE's firm commitment to clean up the SLAPS for future generations will make the project a success.

The following attachments will more fully explain the specific concerns of MDNR. Please feel free to call me or my staff if you have questions.

Very truly yours,

DEPARTMENT OF NATURAL RESOURCES

David A. Shorr
Director

DAS:jm

Attachment

Attachment

Missouri Department of Natural Resources
Comments on SLAPS Interim Action EE/CA
August 28, 1997

General Comments

1. In June 1997, the DOE collected and analyzed soil samples on 25 foot grids from the waste area of the proposed excavation. MDNR wishes to review the radiological and chemical data, as well as the geologic logs available from this sampling event as soon as possible.

2. The establishment of background levels of all contaminants of concern in the soils representative of those naturally occurring at SLAPS is critical for the total remediation project. MDNR prefers to see these background levels established soon and are certainly willing to assist in locating and collecting proper samples.

3. Radon is not discussed in the Interim Action EE/CA. DOE must propose a method of monitoring for this gas and describe how workers will be protected if it is encountered.

4. The actions proposed in the Interim Action EE/CA will be a source of particulate matter which could cause problems with fugitive emissions or opacity. These types of issues will need to be coordinated with the St. Louis County Air and Waste Program. A copy of the EE/CA should be sent to Chris Byrne, Director of the St. Louis County Air and Waste Program.

5. Water management at SLAPS during the proposed EE/CA activities is paramount to the success of the project. MDNR appreciates the discussions held with DOE and their contractors at the August 26, 1997 meeting. More details of those plans, contingencies and protective measures, as discussed in the meeting, should be included in the EE/CA. MDNR understands that they will be able to review the site specific workplan and scope of work responsibilities for both the contractors and DOE to be sure all concerns are addressed. However, a commitment to responsible water management must also be referenced in the EE/CA document and the narrative should include assurance to maintain slope stability in excavations.

6. Very little detail has been provided in the document to show how removal of waste material will occur, how the clean fill will not become recontaminated, or how placement of clean fill will occur. This was also discussed in detail at the August 26 meeting and DOE committed to responsible procedures. Some reference to proper management of the waste material and some details of such actions should be included in the EE/CA.

7. This EE/CA does not discuss the fact that groundwater monitoring wells exist in the area currently proposed for excavation. They must be properly abandoned according to Missouri law. Details should identify the wells affected, method of abandonment, proposal for replacement wells and plans to gather as much data as possible from the existing wells prior to abandonment.

8. DOE has repeatedly spoken to the commitment to revisit the excavated area if clean up criteria defined at a later date indicates that remediation is not complete or if field conditions do not allow for removal of all material contaminated above the levels of concern. The EE/CA should explain how such areas will be identified so they may be easily accessed in the future.

9. It was reported that the gabian wall has counterforts, approximately 6 feet in length, extending back into the waste material. The EE/CA should acknowledge their existence and explain the plan to adequately protect their integrity during the excavation process.

10. The final grade of the entire SLAPS site has not been discussed to date. The EE/CA proposes reestablishing the existing grade in the interim area to be excavated. It should be understood that this may be reconsidered at a later time.

11. The EE/CA doesn't provide a time frame for the project along with a possible schedule of activities for each alternative. Is the loadout area going to be constructed first or excavation first?

12. Why does the task force reference indicate the following for unrestricted use clean up standard; thorium/radium concentrations not to exceed 5 picocuries per gram averaged over the first 15 cm of soil and 15 picocuries per gram averaged over 15 cm thick layers of soil more than 15 cm below the surface and the EE/CA indicates a standard of 5 picocuries per gram above background for the first 15 cm of soil? Which is correct?

13. How much money is available for SLAPS cleanup in FY97 and FY98?

Specific Comments

Executive Summary

1.p.2 Alternative #1 describes current monitoring at SLAPS. It is our understanding that no regular monitoring has been done at the site from 1992 until the summer of 1997. The previous monitoring program (pre-1992) was not consistent nor comprehensive for all potential contaminants that may exist. We recommend that this description of current conditions accurately reflect the incomplete surface and groundwater monitoring that has been conducted to this point in time.

2.p.2 DOE should further describe the "temporary stockpile" of materials proposed in Alternative #2. The limitations on the size of this pile should be described (height and acreage). Will the pile be covered or placed on a pad? How will public exposure be minimized? How long will the moderately contaminated material be stored at SLAPS?

3.p.3 The descriptions of Alternatives #2 and #3 do not adequately describe the engineered drainageway that was discussed to handle all drainage from SLAPS subsequent to remediating the ditches. Settlement ponds have been discussed that will allow water velocities to diminish and keep contaminated sediment on-site. It was our understanding that once the engineering design for such impoundments was complete, it would be included in this document. Under Alternative 2, how will DOE prevent recontaminating the ditch and Coldwater Creek?

5.p.3 Costs listed here are different from other parts of the EE/CA. Which costs are correct?

6.p.4 Neither descriptions of Alternative #2 or #3 discusses the need to properly abandon several monitoring wells that are located in the area to excavate and remove. It is understood that approximately seven existing groundwater monitoring wells will be abandoned according to MDNR regulations. The wells will be replaced with several new wells at locations and depths agreeable to both the DOE and MDNR.

7.p.4 It is vitally important that as much information/data as possible be collected from the existing groundwater monitoring wells as possible prior to abandonment. A minimum of one sampling event and water analysis of these wells must occur and more, if possible, before abandonment. Construction of weirs on the ditches leaving the site and collection of runoff data (both quantity and quality) is also highly recommended prior the EE/CA activities altering the discharge from the site. Runoff from the site should also be monitored during the EE/CA clean-up. Such weirs can serve as locations for measuring quantity and quality of runoff during this removal. Data should document the improved control of stormwater runoff.

Introduction

8.p.1-1 When the contaminated materials have been excavated, it is understood that clean clay fill will replace the contaminated material. Please describe how the clean material will be placed, compaction anticipated, and the reasoning described if there will be a need for a drain and/or barrier to be placed east of the clean material so it will not become recontaminated.

9.p.1-2 Is it true that Barium Sulfate went to West Lake, and were all thorium wastes sent to the Quarry?

Site Characterization

10.p.2-1 The water main described in the first paragraph actually runs on the north side of SLAPS, but south of McDonnell Boulevard.

11.p.2-5 The three units of non-lithified material beneath the site are 1) loess, 2) lacustrine, and 3) residual. The lacustrine deposits are resultant of glacial activities. The uppermost unit beneath the fill is loess (sub-unit 2) not sub-unit 3T which is lacustrine in origin. Where sub-unit 3M pinches out is unknown at this time and whether sub-unit 3B is continuous beneath the entire site or not is unproven. Most of the exploration holes were not deep enough to determine the continuity of 3B.

12.p.2-16 Paragraph on radiological analysis should refer to "ditches north and south of McDonnell Boulevard". The same should occur on table titles on p. 2-18.

13.Table 2-2 Please define the type of soils analyzed by ANL 1993 to derive background concentrations. if they were not glacial soils, or were an average of soil types, this table may be a poor comparison.

14.p.2-20 The rate of movement of the radionuclides is dependent upon aquifer conditions and the chemical state of the radionuclides. This data is not available currently; therefore, one should not state their rate of migration is very slow. New analytical data should help to define the extent of movement to this date.

15.p.2-22 Paragraph 1, Sentence 3 ... What does "Anticipated long-term remedy for this site" mean?

16.Table 2-4 The chemical carcinogenic risk must be recalculated after new chemical sampling data is available.

Identification and Analysis of Alternatives

17.p.3-2 ...End date for any interim storage must be defined.

Analysis of Alternatives

18.p.4-1 ...Sum of Ratios doesn't address other isotopes.

19.p.4-1 Please fully define the field conditions that will warrant continuing or stopping the excavation. Contingency plans for flooding, large rain events, and other emergencies should be provided.

20.p.4-4 ... What does the second paragraph on this page mean or accomplish?

21.p.4-4 Only 10% of the field screening samples will be confirmed with lab analysis each day. The department would like to review further documentation that field and lab analysis historically have compared well.

22.p.4-6 Alternative 3 ... "Results in more highly-contaminated soils remaining on-site." Does the area proposed in Alternative 2 to be excavated from the ditch north of McDonnell Blvd. contain the highest readings of the entire north ditch?

23.p.4-9 4th paragraph... Please explain: "Impact on traffic safety would also be minimal"?

24.p.4-9 Will radon monitoring occur around stockpiles or in the excavation?

25.p.4-10 ... What is "good construction" practices with respect to groundwater, surface water and flooding control?

26.p.4-12 ... Costs on this page don't agree with costs on page 3. Also page 3 shows Alternative 3 as cheaper than Alternative 2.

SL-1270
2350

Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri

U.S. Department of Energy

FUSRAP Document Management System

Year: 00 | ID: 2350

Further Info? ☐

Operating Unit: St. Louis Sites | Site: SLAPS | Area: | MARKS Number: FN:1110-1-8100g

Primary Document Type: Public Affairs/Community Relati | Secondary Document Type: Correspondence

Subject or Title: St. Louis Airport Site (SLAPS) Interim Action Engineering Evaluation/Cost Analysis (EE/CA)

Author/Originator: David Shorr | Company: MDNR | Date: 8/28/97

Recipient (s): Stephen McCracken | Company (-ies): FUSRAP | Version: Final

Original's Location: Central Files | Document Format: paper | Confidential File? ☐

Comments: 9810161047

SAIC number: 22 01 06

Bechtel ID: SL-1270, 153-G

Include in which AR(s)?

- ☑ North County
- ☐ Madison
- ☐ Downtown
- ☐ Iowa

ETL: 8.1

Filed in Volume: 8