

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

Mel Carnahan, Governor • David A. Shorr, Director

DIVISION OF ENVIRONMENTAL QUALITY  
P.O. Box 176 Jefferson City, MO 65102-0176

SEP 1 1 44 PM '94

August 26, 1994

Mr. David Adler, Project Manager  
Former Sites Restoration Division  
Oak Ridge Operations  
P.O. Box 2001  
Oak Ridge, Tennessee 37831-8723

Re: FUSRAP St. Louis Site  
St. Louis Airport Site Surveillance Activities

Dear Mr. Adler:

This letter is in response to the "Scope of Current DOE SLAPS Surveillance Activities," transmitted at the July 14, 1994 quarterly meeting and along with the July 29, 1994 quarterly progress report. Past groundwater monitoring results for the SLAPS (St. Louis Airport Site) have also been reviewed.

We are encouraged that the DOE will resume groundwater monitoring at the SLAPS to determine if contaminated groundwater resulting from radiological wastes at the site is migrating. After review of the available data, we have noted the following comments and questions that should be addressed in this determination.

1. The three wells selected for semi-annual monitoring are appropriate downgradient wells to monitor. The spacing between these wells is approximately 1,000 feet. What are the condition of wells B53W10S and B53W13S? Were these wells considered for sampling also?
2. There is no indication that a background well will be monitored. An appropriate background well should be selected and monitored at the same frequency as downgradient wells. It appears from existing data that inconsistent background wells have been designated in the past, making it difficult to establish background values for the shallow and deep groundwater zones.

Mr. David Adler  
August 26, 1994  
Page Two

3. The monitoring frequency should be increased to quarterly while background levels are being established and while the initial determination is made as to whether groundwater contamination is migrating, especially in consideration of subsequent comments regarding unexplained contaminant indications from past monitoring.
4. Several sample results in Table 3-21 in the Remedial Investigation Addendum indicate that levels of radionuclides in several wells could be elevated:
  - a. Well B53W11D for total uranium in 1991 and total uranium, radium 226, and thorium 230 in 1992.
  - b. Well B53W12D for total uranium, radium 226, and thorium 230 in 1992.
  - c. Well B53W13S for total uranium in 1992.

These wells need to be investigated further, to determine if these results were caused by radionuclide contamination at the SLAPS. The 1991 Environmental Surveillance Report for the SLAPS indicated that some wells were known to be damaged and/or require cleaning, and that a program was being implemented to begin repairing and cleaning activities. What were the results of this effort? Additional sampling of these wells may be necessary.

5. The December 1993 sampling effort resulted in detection of arsenic, chromium, and selenium above expected concentrations and above MCLs (maximum contaminant levels). These results need further investigation, by resampling for verification, and definition of a contaminant plume, if appropriate. Background levels for these constituents also need to be established. We concur that the arsenic could be derived from the natural materials underlying the site.
6. The sulfate, fluoride, and nitrate anions should be added to all sampling, as these constituents could be present in the waste and would provide an early indication of migration of leachate from the waste.
7. Since trichloroethene has been detected on two occasions in monitoring well B53W17S, it should be added to the list of sampling parameters.

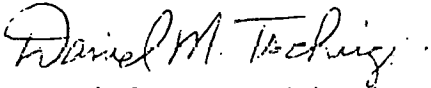
Mr. David Adler  
August 26, 1994  
Page Three

8. Since metal and organic contaminants have been detected in the monitoring system, DOE should perform an annual scan for organic and inorganic parameters in all wells in this surveillance program.
9. The Remedial Investigation Addendum averages analytical values from several years, and compares the averaged value to background. This is not an appropriate method to determine if waste constituents are present in the wells. Individual sample results need to be compared to background values.
10. Is there an ongoing inspection and maintenance program for the monitoring well system?

Thank you for your consideration of our concerns. Please contact me at 314/751-3107 if you have questions regarding any of these comments.

Sincerely,

HAZARDOUS WASTE PROGRAM



Daniel M. Tschirgi, P.E.  
Environmental Engineer

c: Mr. Dan Wall, EPA Region VII  
Bob Eck, SLRO  
Ms. Myrna Rueff, DGLS August 25, 1994

DT/dk

SL-413  
120067 01

00-1552

Formerly Utilized Sites Remedial Action Program (FUSRAP)

# ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri



U.S. Department of Energy

Property  
of  
ST LOUIS FUSRAP LIBRARY