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## Department of Energy

Oak Ridge Operations  
P.O. Box 2001  
Oak Ridge, Tennessee 37831— 8723

April 28, 1994

Mr. Daniel Wall  
Site Assessment and Federal  
Facility Section - Superfund Branch  
U.S. Environmental Protection Agency  
Region VII  
726 Minnesota Avenue  
Kansas City, Kansas 66101

Dear Mr. Wall:

### QUARTERLY PROGRESS REPORT FOR THE PERIOD JANUARY - MARCH 1994 FOR THE FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM (FUSRAP) ST. LOUIS SITE

The following items represent the significant activities and achievements related to the FUSRAP St. Louis Site for the period January - March 1994:

- There were no Federal Facilities Agreement (FFA) milestones scheduled during this period. However, related activities included the following:

- 1) EPA provided additional comments on the "draft final" versions of the Feasibility Study-Draft Environmental Impact Statement (FS-DEIS) and the Proposed Plan (PP) which were originally submitted to EPA in July 1993. During the past quarter, EPA and DOE agreed to continue the review of options presented in the feasibility study while EPA and the Missouri Department of Natural Resources analyzed the results of the additional field studies performed during November and December 1993. Meetings between EPA, the state, and DOE were held on February 8 and March 8, 1994 to discuss this information. The March 8 meeting also served as the quarterly project managers' meeting.

During the quarter, DOE provided EPA and the state with the data from, and interpretation of, the supplemental field sampling and analysis program undertaken in late 1993. The results of this study confirmed and reinforced previous DOE analyses and conclusions regarding the geologic and hydrogeologic suitability of the St. Louis Airport Site (SLAPS) for purposes of constructing a capped disposal facility.

MDNR has requested that geophysical testing be performed at SLAPS. This work is currently on hold; DOE will continue to work with

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EPA and MDNR to arrange for any necessary testing at an appropriate future date.

- 2) In January and March, David Shorr, Director of the Missouri Department of Natural Resources, sent letters to Thomas Grumbly, DOE Assistant Secretary for Environmental Restoration and Waste Management expressing displeasure with DOE's proposed consolidate and cap design for a waste disposal facility at SLAPS.

Mr. Shorr strongly expressed similar views to Mr. Grumbly, in person, during a meeting of DOE's Environmental Management Advisory Board (EMAB) in St. Louis on March 14 and 15, 1994. As a result, Mr. Grumbly was compelled to consider withdrawal of DOE's proposed plan for the FUSRAP St. Louis Site. Mr. Grumbly indicated that because DOE and EPA had been advised by the state and other elected officials that the proposed plan was unacceptable to the state, it was necessary for DOE and EPA to reconsider all options for a St. Louis Site remedy.

At the present time, DOE is in the process arranging a "key stakeholders' workshop" that will allow affected decisionmakers an opportunity to address DOE to make their views and recommendations known. This workshop is tentatively scheduled for June 1994.

- 3) On March 28, 1994, EPA forwarded a letter to Assistant Secretary Grumbly making several recommendations regarding the need for interim actions at the St. Louis Site. DOE has initiated actions to develop options for interim cleanup of vicinity properties, as well as reviewing options for assisting the City of St. Louis in its management responsibility for SLAPS.

- The St. Louis cleanup effort received front page, "above the fold," coverage of the status of the remedy selection process in the St. Louis Post Dispatch on January 11, 1994. The lengthy article was well written and presented an objective view of the efforts leading toward a cleanup decision. The article was followed by an editorial a few days later; the editorial was moderately supportive of a St. Louis-based remedy because of its cost-effectiveness compared to other more expensive solutions.

In March, following the EMAB meeting, there was again extensive coverage (both news and editorial) of the decision-making process. Mr. Grumbly's assessment that all possible options for remedy selection should be reconsidered was interpreted by the media as a decision to rule out SLAPS as a disposal option.

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- DOE met with representatives of the Missouri Department of Natural Resources, the Missouri Attorney General's Office, the City of St. Louis, the St. Louis Airport Authority, and EPA on March 8, 1994 to discuss notices of violation (NOV) issued to the City of St. Louis and DOE citing the failure of either party to apply for a stormwater discharge permit at SLAPS. No resolution was achieved at this meeting; however, all parties agreed to review the matter further.

DOE has expressed a willingness to assist the City of St. Louis in the City's obligation to manage the SLAPS site in accordance with applicable requirements. DOE continues to maintain that the NOV issued against DOE was not valid because the property is currently owned by the City of St. Louis and because DOE has no ongoing presence at the site. Under the quit claim deed that transferred the property from the Atomic Energy Commission to the City in the 1973, the City undertook responsibility for managing and monitoring the radiological condition of the site.

In addition, DOE maintains that actual permitting of stormwater leaving SLAPS is not required because SLAPS and Coldwater Creek are part of the same CERCLA/NPL "area of contamination" (AOC); it is inappropriate for the state to require a stormwater permit for this contiguous AOC. Further, CERCLA section 121e provides an exemption from the administrative requirements of NPDES permitting (even if NPDES requirements were not superseded, in this case, by the existence of a single AOC as defined under CERCLA).

- DOE is continuing to work with researchers from the Ames Laboratory to coordinate a test program of innovative characterization technologies at SLAPS. The Ames researchers are developing new, cost-effective site screening and characterization methodologies based on holistic assessments of site conditions combined with new, innovative sampling and analysis tools. The Ames researchers expect to mobilize at SLAPS during late summer 1994.
- On February 2, 1994, a FUSRAP representative met with representatives of the U.S. Army Corps of Engineers to discuss the proposed plan and how that would effect the Corps' plans to widen the channel of Coldwater Creek.
- A FUSRAP representative met with the St. Louis County Water Company to discuss the proposed plan on February 2, 1994. The discussions focused both on the future need to excavate contaminated soils from around county water lines, as well as water company concerns related to maintenance of the water lines between now and the final cleanup.
- A FUSRAP representative conducted a briefing for 25 representatives of the Federal Aviation Administration (FAA) at FAA's regional office in Kansas City on February 9, 1994. Previous discussions related to the impacts of St. Louis remedy selection on the St. Louis airport had been coordinated through the St. Louis Airport Authority. The Airport

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Authority will continue to be the primary contact for issues related to airport expansion plans; however, since the FAA is responsible for airplane flight paths and radar/navigation systems, DOE plans to work more closely with the FAA to ensure that proposed remedies do not have an impact on airport flight operations.

- On March 7, 1994, FUSRAP representatives met with Mallinckrodt representatives to discuss Mallinckrodt plans to undertake significant construction activity in potentially contaminated areas at the St. Louis Downtown Site (SLDS). Mallinckrodt requested that DOE provide assistance in managing radioactive contamination in areas of Mallinckrodt's planned work. DOE advised Mallinckrodt that it would be willing to discuss specific Mallinckrodt needs as they arise; however, DOE noted that there is only limited storage capacity for new radioactively contaminated waste in the building that Mallinckrodt and DOE share for that purpose (Building 116).
- The extremely cold weather in St. Louis during the first quarter caused a number of water line break in the metropolitan area. Three breaks affected FUSRAP: 1) a break in a water line supplying a garden-type spigot at HISS caused water to flow from an uncontaminated area at HISS onto Latty Avenue; 2) a break in a water main on Latty Avenue caused minor erosion of soils along Latty Avenue; and 3) a break in a fire suppression water line at SLDS Building 116 caused a puddle inside Building 116 (no contaminated materials in storage at the building were affected).
- During the quarter, there were several interactions with local property owners in the North County area with regard to radioactively contaminated vicinity properties. The most significant of these include:
  - 1) The tenant and the landlord for the property adjacent to HISS (9150 Latty Avenue) have a need to expand the industrial facilities on that property. The work could involve excavation of up 3000 cy<sup>3</sup> of soil -- which the tenant/landlord propose to place into an interim storage pile on the property. The tenant/landlord have agreed to solicit DOE's concurrence on all actions prior to undertaking them.
  - 2) The tenant at 9060 Latty Avenue is planning to undertake remediation of underground storage tanks and oil contaminated soil on that property. This work would involve excavation of up to 1000 cy<sup>3</sup> of radioactively contaminated soil which overlays the underground oil contamination. The tenant is proposing to place the radioactively contaminated soils into an interim storage pile on the property. The tenant has agreed to solicit DOE's concurrence on all actions prior to undertaking them.

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- 3) The owner of the property on Pershall Road, adjacent to Coldwater Creek and the Ford manufacturing plant, has initiated actions to build a large parking lot on that property. The owner consulted with DOE prior to beginning this work; it was determined that because contamination levels on this property were very low, the work would pose no health risk to the workers or the public.
- During the first quarter, FUSRAP sponsored a series of workshops in St. Louis related to the RI/FS documents. The first workshop, held on January 18th, focused on the results of the remedial investigation. Approximately 40 persons attended this workshop; the consensus was that they left with a better understanding and appreciation of the contamination issues on the St. Louis Site.

The second workshop described the options discussed in the feasibility study; and participants were allowed to explore the pros and cons of the various options. Approximately 35 persons attended this workshop.

The workshops were advertised using an announcement mailed to everyone on the FUSRAP St. Louis mailing list, as well as through the local media. Turnout for the workshops was light but enthusiastic. Feedback on the quality and content of the workshops was positive.

- Several community relations activities were undertaken during the quarter. The highlights include:
  - 1) A FUSRAP representative made a presentation to an honors physics class at Hazelwood East High School on February 1st. The presentation focused on the practical aspects of radiation, work in a radiation environment, and the status of FUSRAP.
  - 2) FUSRAP representatives provided the Florissant Rotary Club with a briefing on the status of the remedy selection process for the St. Louis Site cleanup on March 7, 1994. A similar presentation was made to the Overland, Missouri Rotary Club on March 9, 1994.
  - 3) David Adler met with members of the St. Louis Chapter of the Sierra Club to discuss remedial alternatives for St. Louis on March 12. The meeting included a tour of the North County sites. The Sierra Club members were generally supportive of DOE's plans and progress toward remedy selection.
- FUSRAP continued to work closely with the St. Louis County Radioactive and Hazardous Waste Oversight Commission. The Commission met formally

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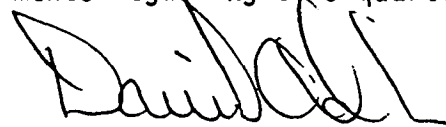
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on January 11th and March 8th. The primary issues discussed were the status of remedy selection, Commission review of the FUSRAP documents currently available, and the Commission's intent to retain an independent expert to review DOE documents and provide consulting advice to the Commission. As part of the March 8 meeting, there was also a tour of the North County FUSRAP sites.

During this quarterly period, environmental sampling consisted of routine surveillance, limited radiological surveys, and sampling associated with ongoing site activities. A summary of these activities and the analytical results received to date is enclosed. As always, all raw data and analyses are available for your review and inspection to the extent that you request.

During the second quarter of 1994 (April - June), there are no required DOE submittals to EPA. DOE will continue to work with EPA toward a technically implementable, as well as a politically acceptable, solution for remedial action in St. Louis.

Please advise if you have questions or comments regarding this quarterly report.



David G. Adler, Site Manager  
Former Sites Restoration Division

Enclosure

cc: R. Geller (MDNR)  
D.M. Tschirgi (MDNR)

## Summary of First Quarter 1994 Sampling and Analysis

The following is a summary of environmental data collected for FUSRAP sites in St. Louis, Missouri during the first quarter. Samples were collected and analyzed in support of environmental surveillance and characterization of the sites. A total of 200 samples and measurements were collected during the quarter and submitted for various radiological and non-radiological analyses.

### Radon

At HISS, 12 radon detectors were collected in support of routine environmental surveillance activities. The maximum concentration of radon detected at the boundary of the site was 0.6 pCi/L, which is less than 20% of the DOE radon guideline of 3.0 pCi/L for occupied or habitable structures.

At SLDS, five radon detectors were collected in support of routine environmental surveillance activities. All measured radon concentrations were below the DOE radon guideline of 3.0 pCi/L for occupied or habitable structures. The maximum concentration of radon detected was 2.0 pCi/L.

### External Gamma

At HISS, 12 tissue equivalent thermoluminescent dosimeters were collected in support of the routine environmental surveillance activities. The measured exposure rates, above background, ranged from 0 (not distinguishable from average background) to 121 mrem/yr at HISS. Historically the exposure rate measured at the southern end of the site (known as location 2) has exceeded the DOE guideline for exposure to the public of 100 mrem/yr above background. Historical information indicates that this area of the site was used for storage of leached barium sulfate residues, which contained significant concentrations of radium; consequently, the elevated gamma exposure rates at the southern end of the site reflect localized subsurface contamination. However, the offsite area near location 2 is heavily wooded; it is unlikely that an individual would occupy that area continuously -- which would be necessary for an individual to actually receive a dose exceeding the DOE guideline.

### Characterization

Two water samples and one sediment sample were collected from an excavation that was dug in order to repair a water main break along Latty Avenue. Results indicated that the extent of contamination in the area of the break was minimal and no contamination was introduced into the water line. The samples were analyzed for uranium-238, uranium-235, uranium-234, radium-226, thorium-230, and thorium-232. It was determined that the line could be placed back into service.

A single water sample was taken at SLDS from water collected after a fire protection system line froze and ruptured. The sample was analyzed for gross alpha and gross beta contamination. Sampling results indicated the water was slightly radioactively contaminated; the water is currently stored in Building 116.

At SLDS 165 surface contamination readings were taken in building 116 of the floor and walls. The survey was conducted as part of a routine biannual survey of building 116. The survey is used to determine if contamination is introduced to the building from stored materials. The following table contains a summary of the data obtained from this activity.

Survey Type	Number of Readings	Maximum dpm/100 cm <sup>2</sup>	Average dpm/100 cm <sup>2</sup>
Transferrable Alpha	40 (2QC)	10	3
Transferrable Beta-Gamma	40 (2QC)	94	57
Direct Alpha	38 (2QC)	1365	103
Direct Beta-Gamma	39 (2QC)	9521	1975

The DOE Surface Residual Contamination Guidelines for free-release of material for unrestricted use are:  
 5000 dpm/100 cm<sup>2</sup> for Average Direct Readings  
 15000 dpm/100 cm<sup>2</sup> for Maximum Direct Readings  
 1000 dpm/100 cm<sup>2</sup> for Transferrable Readings

Based on this data, there is no measurable change in the contamination conditions within the building.

At SLAPS, two rinse water samples were collected and analyzed for heavy metals. The rinse water was used during geological sampling performed during the fourth quarter of 1993.



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Formerly Utilized Sites Remedial Action Program (FUSRAP)

# ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri



U.S. Department of Energy

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