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Department of Energy

Oak Ridge Operations
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Oak Ridge, Tennessee 37831— 8723

February 1, 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 OCTOBER-DECEMBER 1993

The following items represent the significant activities and achievements related to the FUSRAP St. Louis Site for the period October - December 1993:

- All Federal Facilities Agreement activities were completed on or ahead of schedule. Related activities included:

  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 submitted to EPA in July. EPA chose not to invoke dispute resolution with regard to these additional comments. DOE agreed to perform additional studies and analyses to address the EPA and MDNR comments prior to releasing the FS-DEIS/PP to the public for comment.

     During November and December, DOE mobilized an extensive field sampling and analysis program designed to address the comments and questions raised by EPA and the Missouri Department of Natural Resources (MDNR) with regard to geologic and hydrogeologic conditions at the St. Louis Airport Site (SLAPS). In the Site Suitability Study for SLAPS, DOE concluded that the existing data, research, and analysis indicated that SLAPS is a suitable location for a waste disposal facility. The sampling and analysis performed during November and December was designed to provide additional evidence to EPA and MDNR reinforcing the DOE analyses and conclusions.

     During the field sampling work, representatives from MDNR visited SLAPS on several occasions to view the field work. As the work was proceeding, FUSRAP also forwarded raw data to the MDNR to allow state evaluation of, and feedback on, the ongoing work.

MDNR had also requested that geophysical testing be performed at SLAPS. This work cannot be efficiently undertaken while the ground is frozen; as such, DOE will continue to work with EPA and MDNR to arrange for testing at an appropriate future date.

2) The project manager's quarterly meeting with EPA was held on October 20, 1994 at the DOE Information Center in Hazelwood, Missouri. The meeting focused on responses to EPA's comments on the FS-DEIS/PP for the St. Louis Site and on the suitability of SLAPS for construction of a disposal facility using the "consolidate and cap" option proposed in the draft final Proposed Plan. Much of the discussion focused on DOE's conclusion that the site meets performance and risk standards for a disposal facility -- and that comments regarding whether SLAPS is a geologically "ideal" site can obscure the primary issue of suitability based on performance and risk standards. DOE geotechnical staff are convinced that the existing geologic data support the conclusion that SLAPS is a suitable location for a disposal facility.

   On November 2, FUSRAP geotechnical staff members met with representatives from EPA and MDNR in follow-up meeting to discuss the geologic and hydrogeologic data related to suitability of SLAPS as a disposal site and to assess what additional sampling and analysis could be performed by DOE to convince EPA and MDNR that the conclusions in the Site Suitability Study were valid. During the course of that meeting and several teleconferences during November, FUSRAP, EPA and MDNR staff defined and agreed to the plan for additional sampling and analyses that DOE undertook at SLAPS in November and December.

3) The Baseline Risk Assessment, which was previously reviewed and approved as "final" by EPA, was prepared for publication in order to be made available during the public comment period for the RI/FS-DEIS and proposed plan.

4) The Health & Safety Plan for the St. Louis Sites was revised to reflect the most current health and safety practices in industry. The plan, which was published in November, was also enhanced to provide health and safety guidance for emergency removal actions in the event such removal actions become necessary. A copy of this revised health and safety plan is enclosed with this report.

At the suggestion of EPA, FUSRAP representatives met with researchers from the Ames Laboratory on November 9 in St. Louis. 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 evaluated several sites, including SLAPS, as candidates for testing of their methods. They ultimately selected SLAPS

for a number of reasons including: 1) the site has many different characterization challenges; 2) the extensive characterization data base already existing on SLAPS will provide a benchmark against which their results can be compared; and 3) the FUSRAP staff was seen as highly cooperative and enthusiastic in helping the researchers develop their new methodologies.

- In December, the stormwater section of MDNR issued separate notices of violation (NOV) to the City of St. Louis and DOE citing the failure of someone to apply for a stormwater discharge permit. MDNR had over the past 6-12 months requested that the St. Louis Airport Authority, an entity under the City of St. Louis, apply for a National Pollutant Discharge Elimination System (NPDES) permit for stormwater leaving SLAPS. The Airport Authority had written letters to MDNR indicating that its interpretation of state laws exempted the site from such permitting. Apparently unable to gain agreement with the Airport Authority, MDNR chose to issue the notices of violation (NOV) in order to "elevate" the level of attention to their request for a permit application.

  DOE discussed the NOV with representatives of the MDNR stormwater group during December. DOE maintained its position 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. DOE noted that in a separate teleconference with the environmental attorney for the City of St. Louis, the attorney agreed that it was likely that any monitoring, should it be necessary, would be the responsibility of the City. MDNR requested that DOE document its position and forward relevant supporting material to the state -- at which time the state would consider rescinding the NOV. DOE has sent a letter to this effect to MDNR.

  In consultation with EPA, it was also noted that because SLAPS and Coldwater Creek are part of the same CERCLA/NPL "area of contamination" (AOC), it may be inappropriate 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).

- During early November, repairs were made to the cover on the large pile at the Hazelwood Interim Storage Site (HISS). The repairs consisted of patching small holes and breaks in the seams of the pile cover which are a result of normal wear, tear, and weathering.

- In November, DOE received a letter from Mallinckrodt Specialty Chemicals Company (MSCC) informing DOE of MSCC plans to undertake expansion and

construction of facilities at the St. Louis Downtown Site (SLDS). Mallinckrodt requested that DOE provide assistance in managing radiologic contamination in areas of Mallinckrodt's planned work. DOE advised Mallinckrodt verbally 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 waste in the building that Mallinckrodt and DOE share for that purpose (Building 116).

- In December, the Metropolitan St. Louis Sewer District (MSD) was provided with an assessment of the potential radiological impacts resulting from sewer line maintenance work along Coldwater Creek in an area downstream from HISS. The assessment concluded that the proposed work could proceed as planned without significant health or safety concerns to workers.

- During the quarter, there were several interactions with local property owners in the North County area with regard to contaminated vicinity properties. The most significant of these include:

  - Information on the radiological conditions of two commercial vicinity properties was provided to owners in the process of refinancing their properties.

  - Similar information was provided to a prospective buyer of a commercial property on Seeger Drive.

- Several community relations activities were undertaken during the quarter. The highlights include:

  1) Meetings were conducted during the week of December 13 with several utility companies to brief them on the status of the proposed plan for the St. Louis Site cleanup.

  2) A meeting was held with representatives of McDonnell Douglas (MD) Corporation to brief them on the status of remedy selection and potential effects on MD operations. The proposal for a waste facility at SLAPS requires that a section of McDonnell Boulevard be rerouted through portions of an existing MD parking lot.

  3) FUSRAP worked closely with the Grace Hill Wellness Council to develop and conduct an environmental issues awareness course as part of the Grace Hill Neighborhood College. Grace Hill is a 90-year-old organization working to enhance neighborhood development and community well-being in less affluent areas of metropolitan St. Louis, including the areas adjacent to SLDS. The Neighborhood College is designed to provide people in the Grace Hill neighborhoods with educational opportunities designed to improve their health, economic, and social wellness. This particular course was intended to help students develop a better understanding of environmental issues such as radioactivity, contamination at the FUSRAP sites, as well as everyday health

concerns in their environment such as asbestos and lead paint in their homes. In addition to providing course materials and instructors, FUSRAP provided a modest stipend for each course participant to cover the expenses students incurred as a result of participating in the neighborhood college course.

4) Two citizen's workshops on the CERCLA remedial investigation/ feasibility study process, as well as the NEPA environmental impact statement process, were conducted. The first, held on October 18, was conducted at the DOE Information Center in Hazelwood; the second, held on October 19th, was conducted at the Hazelwood Civic Center. 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 workshop was positive.

- FUSRAP continued to work closely with the St. Louis County Radioactive and Hazardous Waste Oversight Commission. The Commission met formally on November 9th, and FUSRAP representatives provided a briefing on risks associated with sediments in Coldwater Creek. There was also extensive discussion regarding the $50,000 financial grant that DOE has offered the Commission. The grant is intended to allow the Commission to retain independent technical experts to advise the Commission on matters related to remedy selection for the FUSRAP sites.

During this quarterly period, environmental sampling consisted of routine monitoring, limited radiological surveys and sampling associated with ongoing site activities, and the sampling and analyses at SLAPS. 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 first quarter of 1994 (January-March), there are no required DOE submittals to EPA. DOE will continue to prepare the existing RI/FS and associated documents for distribution to the public for comment during the first quarter of 1994. The current schedule is that the public meeting soliciting input on the FS-EIS/PP will take place in late March or early April.

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

David G. Adler, Site Manager
Former Sites Restoration Division

Enclosures

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

Summary of Fourth Quarter 1993 Sampling and Analysis

The following is a summary of environmental data collected for FUSRAP sites in St. Louis, Missouri during the fourth quarter. Samples were collected and analyzed in support of characterization and environmental surveillance of the sites. A total of 107 samples and measurements were collected during the quarter and submitted for various radionuclide and chemical analyses.

Radon

At HISS 12 radon detectors were collected in support of routine environmental monitoring activities. The maximum concentration of radon detected at the boundary of the site was approximately 0.8 pCi/l, which is less than 27% of the DOE guideline of 3.0 pCi/L.

Sediment

Seven sediment samples were collected near HISS in support of the routine environmental monitoring program at the site. The maximum concentration of radium-226, thorium-230, thorium-232, and total uranium were 1.70, 44.96, 0.94, and 5.67 pCi/g, respectively (all sediment results include background). All results for radium-226, thorium-232, and total uranium were below the DOE soil cleanup guidelines of 5 (radium and thorium) and 100 pCi/g (total uranium) above background for residual radioactivity in surface soils. Two sediment samples, including the maximum noted above, showed thorium-230 levels elevated above the DOE soil cleanup guideline. These anomalies are believed to result from the migration of known contamination in Coldwater Creek and represent no apparent trend of increasing or decreasing contaminant levels in the creek. Future sample results for these locations will be compared to the values from the past quarter to assure that no trends of increasing contamination in the creek exist.

Groundwater

Twenty one groundwater samples were collected at HISS in support of the routine environmental monitoring program at the site. Twelve of the samples were analyzed for radiological parameters and nine of the samples were analyzed for nonradiological parameters. The maximum concentration of radium-226, thorium-230, thorium-232, and total uranium were 1.37, 0.99, 0.06, and 3.01 pCi/L, respectively (all groundwater results include background). All results were below the DOE guideline of 100, 300, 50, and 600 pCi/L above background for radium-226, thorium-230, thorium-232, and total uranium, respectively.

At SLAPS, 55 groundwater samples were collected and analyzed for chemical indicators and metals. These samples were collected to further understand characteristics of the hydrogeology at SLAPS.

Surface Water

Six surface water samples were collected near HISS in support of the routine environmental monitoring program at the site. The maximum concentration of radium-226, thorium-230, thorium-232, and total uranium were 0.27, 0.19, 0.03, and 3.14 pCi/L, respectively (all surface water results include background). All results were below the DOE guideline of 100, 300, 50, and 600 pCi/L above background for radium-226, thorium-230, thorium-232, and total uranium, respectively.

Storm Water (NPDES)

Four storm water samples were collected at HISS during the fourth quarter of 1993. The samples were analyzed for radiological and nonradiological parameters. The following list of parameters was analyzed to assure compliance with the current discharge permit; settleable solids, pH, specific conductance, total organic carbon, total organic halogen, total uranium, radium-228, radium-226, thorium-230, thorium-232, lead-210, gross alpha, and gross beta. Results from analyses indicated discharges were in compliance with NPDES permit MO-0111252. Additionally, results of radiological analyses were compared to DOE DCGs. All analyzed radionuclide concentrations in the storm water runoff were at least an order of magnitude below the applicable DCGs.

Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri

U.S. Department of Energy