

MINUTES

St. Louis Site Remediation Task Force

January 16, 1996 Meeting

Hazelwood Civic Center
Hazelwood, Missouri

APPROVED

Participants Attending

Dave Alder, DOE
Tom Binz, Laclede Gas Company
Richard Cavanagh, St. Louis County
Health Dept.
Kay Drey
David Farquharson, City of Hazelwood
Jack Fraenhoffer, Mallinckrodt Chemical
Company
Anna Ginsburg, City of St. Louis
James Grant, Mallinckrodt Chemical Co.
Tom Horgan, Congressman Talent's Office
Nancy Lubiewski
Tom Manning, City of Hazelwood
Bob Marchant, Metropolitan St. Louis
Sewer District
Jean Montgomery, City of Berkeley
Eileen O'Connor, Union Electric
Sally Price, Chair
Josh Richardson, City of Berkeley
Ray Rolen, City of Bridgeton
Elsa Steward, MDNR
Dan Wall, EPA

Support

Jim Dwyer, Facilitator
Miranda Duncan, Co-Facilitator

Chuck Jenkins, FUSRAP
Wayne Johnson, FUSRAP
Dave Miller, SAIC
Sarah Snyder, FUSRAP

Other Interested Parties

Thomas Aley, Coldwater Creek Panel
Wayne Black, St. Louis County Health Dept.
Bradley Brown, St. Louis County Water Co.
Jim Cox, Coldwater Creek Panel
Mimi Garstang, Coldwater Creek Panel
Bob Geller, MDNR
Dennis Henson, Union Electric
Lou Jearls, City of Florissant
Ron Kucera
Paul Kos, Stone Container Corp.
Ed Mahr Jr.
Linda Meyer, Weldon Spring Site Remedial
Action Project
David W. Miller, Coldwater Creek Panel
Laurie Peterfreund, NCEIT
John Rockaway, Coldwater Creek Panel
Mitch Scherzinger, Missouri Dept. of Natural
Resources
Jan Titus, Lambert Airport
Robert Wester, R.M. Wester and Associates
Christian Willauer, MIT

<u>Agenda Item</u>	<u>Minutes</u>	<u>Determination</u>
Welcome, Opening Comments, Announcements	Chair Sally Price called the meeting to order at 7:39 a.m. Ms. Price welcomed Ray Rolen, the newly appointed Task Force representative from	

*Approval of
Minutes*

Ms. Price asked if there were any amendments to the draft minutes of the December 12, 1995 Task Force meeting. Tom Manning suggested two typographical corrections; the minutes were approved as amended.

The minutes of the December 12, 1995 meeting were approved as amended.

*Opportunity for
Public Comment*

Ms. Price asked if there were any comments from the public. Christian Willauer, who is managing a public participation research project being conducted by MIT, introduced herself. She said she would be talking with several Task Force participants over the next few weeks in order to learn how the local community has been involved in the Task Force process.

*Administrative
Matters*

Jim Dwyer reported on the status of potential new stakeholder participants by advising that McDonnell Douglas has opted not to participate on the Task Force.

*Communications
Working Group*

Mr. Dwyer advised that the Communications Working Group has developed a proposed plan for distributing the draft final and final Task Force report to various interested parties. He asked participants to review the plan and be prepared to take action on it at the next Task Force meeting.

*Coldwater Creek
Panel Report*

Mr. Dwyer then introduced David W. Miller, chair of the Coldwater Creek Panel, who briefed the Task Force on the panel's findings.

Mr. Miller said he has been a groundwater consultant for about 45 years. He said he would provide the Task Force with an outline of some of the conclusions the panel had reached and how it developed them, as well as what site factors were considered

significant by the panel.

He said the panel has a great deal of expertise and varied career paths, and yet was able to reach consensus on the findings.

Mr. Miller said he had not prepared a handout for the Task Force, as the panel still is writing its report. However, he did use an overhead projector to display an outline of his presentation.

Key Issues Considered by the Panel:

- Impact of shallow groundwater on creek and creek sediment (present and future)
- Impact of surface water runoff on creek and creek sediment
- Impact of site on deep groundwater (e.g. next 100 years)

Additional Issues Considered by the Panel:

- Adequacy of existing data
- Adequacy of site for additional disposal
- Recommended short-term activities

Information Used by the Panel:

- Feasibility Study, site suitability study, risk assessment
- Data on geology, hydrology, water quality, soil and sediment
- Presentations by DOE technical group
- Responses to panel inquiries
- Modeling by DOE technical group

Mr. Miller said that prior investigations of the St. Louis Site were not intended to answer the questions put to the panel, which is why the panel relied on modeling to project future conditions. The panel tried to use modeling as the basis for decision-making.

Site Concerns:

- Presence of radionuclides in soil and groundwater
- High concentrations of radionuclides in groundwater next to creek
- Contaminated soil above and below water table (Mr. Miller said precipitation can bring contaminants into contact with the groundwater, which means there can be a continuing source of contamination of the groundwater.)
- Some contaminants very shallow (McDonnell Boulevard and railroad)
- Potential direct discharge of contaminants to creek (Contaminated creek sediments extend downstream)
- Presence of VOCs (volatile organic chemicals) (Mr. Miller said there is the possibility that some of these volatile contaminants can facilitate movement of radionuclides; radionuclides generally don't move very far or very fast otherwise.)
- Results of DOE baseline risk assessment (Mr. Miller said that the Baseline Risk Assessment (BRA) shows that there is risk posed by the presence of contamination at the site.)

Concerns for Future Disposal:

- Shallow water table
- Contact of water table with wastes
- Proven migration of radionuclides (although not formed formal plume, they have moved)
- Flood plain setting (likened to municipal landfill sitings, in which this prevents siting those facilities)
- Proximity of wastes to creek
- Low permeability layer not continuous
- Shallow limestone aquifer (probably least favorable to have beneath a contaminated site)
- Model results were based on no additional wastes and continuous aquitard

Mr. Miller said the panel felt that these

conditions rule out the airport site for disposal of any additional waste.

Favorable Site Factors:

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- Fine-grained sediments and confining layer (results in movement of less than a foot in years)
- Low mobility of radionuclides
- No groundwater use in area
- Contaminants have not moved far
- Concentrations of principal contaminants in soil well defined (have good idea of where soil contaminated, although do not have good idea of how much waste was previously there and removed)
- Model results suggest minimum impact
- Present radionuclide Coldwater Creek concentrations not elevated

Mr. Miller said the panel felt that not enough monitoring data have been collected over the last few years, but what data have been collected show that concentrations are not elevated.

Conclusions:

1. Although contaminants have migrated, significant impact to Coldwater Creek via the groundwater pathway is not expected to occur for more than 100 years.
2. Radionuclides have already impacted surface water and sediment quality in Coldwater Creek. Although impact does not appear acute at this time, these contaminants do present a chronic problem.
3. Available data and modeling results indicate that significant impact on the bedrock aquifer will not occur for the foreseeable future (100 years). However characterization of the geologic properties of the various formations and verification of the groundwater flow system are not

complete.

Mr. Miller said the panel still is developing its third conclusion.

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Modeling Concerns:

- Geologic parameters are extrapolated
- Potential for hydraulic pathways in various layers
- Waste unknowns (don't know how site was left when materials were taken away)
- Potential for facilitated transport (VOCs, e.g.)
- Not verified by recent head and water quality data
- Vertical flow not fully characterized in source area
- Lack of bedrock data (concern about cross-contamination and the quality of the limestone)

More Conclusions:

- This site is not acceptable for disposal of additional contaminated soil or other waste products.
- The various St. Louis FUSRAP sites may not lend themselves to a joint remedial approach. Although some economies of scale may exist, each location represents a unique environment.

Recommendations:

- Design and implement a drainage control system
- Investigate flood protection measures and stream bank erosion protection
- Include the shallow contaminated soils along McDonnell Boulevard and the railroad in the existing soil remediation activities now going on in the area
- Develop a program for long range data collection, analysis, modeling, and risk assessment
 - a) stream gauging

- b) limestone monitoring wells
- c) more frequent surface-water and groundwater quality monitoring (not enough rounds of information to develop a statistical base for determining long-term trends)

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Mr. Miller said he would not recommend digging up the site because this could create a greater risk than leaving the materials in place. He then invited questions from the Task Force.

Mr. Manning asked if there was anything that would prevent lining the creek to prevent flooding problems. Mr. Miller said the panel recommended drainage control. He said any activity must be examined in terms of its overall effect on the creek.

Josh Richardson asked if the panel's first priority is its recommendation that surface water runoff be controlled. Mr. Miller said that was correct.

Bob Geller asked whether the recommendation not to dig up the site was based solely on the impacts on the groundwater and the surface water, and not on risk assessment.

Mr. Miller said the recommendation is based on an evaluation of the risks as well. He said he compared the risks of leaving the material in place, and the associated site risks, with digging up the site. Excavation is a very slow process and very difficult to control. He said it would be difficult to control windblown sediments over such a large site. So, when comparing those potential risks versus those associated with existing conditions, the panel concluded that the biggest problem is surface water runoff.

Kay Drey said she was amazed to hear that

groundwater is not impacting the creek.

Mr. Miller said the mobility of contaminated material at the site is very slow. There has been no evidence of the development of plumes over the long term. The monitoring in the creek has not shown impact. Someday, perhaps, contaminated material might get into the creek, but the panel does not expect this to occur in significant amount for a long time, perhaps as long as 100 years. He said that based on the information available to the panel, it appears that much of the contamination in the creek occurred via surface migration when the site was not under control. Control is not presently complete, but the installation of the gabion wall has cut erosion down.

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Ms. Drey asked if the panel had looked at the sediment contamination in the creek. Mr. Miller said the panel had looked at the sediment.

Nancy Lubiewski asked how long it would take to implement a program for protection of Coldwater Creek. Mr. Miller said it probably would take a year or two, if there is no red tape.

Ron Kucera, an observer, said he was concerned because the panel seems to have gone beyond its scope in recommending that SLAPS not be excavated. He said there are other considerations, such as economic and policy issues, that contribute to the ultimate decision about what to do at SLAPS.

Mr. Miller said the panel is in no way recommending policy or creating policy. He said the panel is just answering the questions put to it.

Elsa Steward asked why the panel limited itself to 100 years for assessing impacts, given the long half lives of some of these materials.

Mr. Miller said the panel used the 100 years

for planning, but used 1,000 years for modeling.

Ms. Price asked whether it was necessary not to have any additional waste on SLAPS in order for stormwater control to be effective. Mr. Miller said that was correct, adding that the site does not meet any of the major criteria that would be used to qualify a generic disposal site. He said he would not recommend this site for future waste disposal because of the natural conditions that exist at the site.

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Ms. Price then asked whether those factors were significant enough to justify digging up the site. Mr. Miller replied that those factors, while significant, have not led to the immediate migration of contaminants or threat to the limestone.

Dave Adler said that the greater the time frame, the harder it is to predict accurately what might happen.

Ray Rolen asked whether the groundwater from SLAPS contributes to the volume of flow in Coldwater Creek within the boundaries of the site.

Mr. Miller said the contribution is not great, primarily because there isn't significant recharge of the groundwater on the site.

Mr. Rolen asked if it would be feasible to divert the creek around SLAPS. Mr. Miller said that could be part of a drainage control plan. He said the panel is not recommending any specific design for such a plan, just that one be implemented.

Ms. Drey asked what could be done about a pipe on the southwest part of site that dumps into the creek. Mr. Miller said the flow from the pipe could be addressed as part of a drainage control plan.

Mr. Miller said there is a need to eliminate surface water that comes into contact with

waste and becomes contaminated. The panel feels that objective can be accomplished with drainage control measures.

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Jim Grant asked if there were any imminent threat from the site as it is right now.

Mr. Miller said he can only refer back to the recommendations. The shallow sediments associated with site may have impact. The panel recommended measures that it feels should be implemented because the risk is significant enough to require action. He said the panel did not do its own formal risk assessment, because that has been done and the data were made available to the panel.

Ms. Drey asked for clarification as to why Mr. Miller thought it was acceptable to leave waste at SLAPS, but why it is not acceptable to use SLAPS for additional waste disposal.

Mr. Miller replied that there are site concerns and suitability concerns. Suitability is a different problem. Site concerns include looking at the threat of leaving the materials there. Site suitability considers the criteria that would be used for any disposal site. He said that if someone came to him and asked if there should be a disposal site at SLAPS, he'd say no. But the question about leaving existing wastes there is a different one.

He added that in the early years of the Superfund program, there had been routine excavation of sites. Now very few are excavated because it is not cost-effective and it is riskier. He said there are other methods that can be employed to minimize risks.

Mr. Kucera said that the Hazelwood Interim Storage Site (HISS) exhibits a lot of the same problems as SLAPS. He asked if the panel was suggesting that HISS waste be left there.

Mr. Miller said the panel was not asked to consider HISS.

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Mr. Kucera said he thought some of the panel's conclusions were premature, especially with the very little data available on the volatile organic compounds buried at the site.

Mr. Miller said the panel had noted the data limitations.

Mr. Dwyer asked if there were any additional questions for the panel. Hearing none, he asked if there is any new business.

New Business

Ms. Drey reminded the Task Force about the upcoming meetings of the Alternative Sites Working Group with representatives of Dawn Mining Co. and Envirocare of Utah. Mr. Dwyer reminded participants that a schedule of the meetings was available as a handout on the sign-in table, and that everyone is welcome to attend.

*Develop Agenda
for February 20
Meeting*

Dave Miller (SAIC) said he will be ready to report at the February meeting on the status of efforts to identify an in-state disposal site and a sanitary landfill for disposal of minimally-contaminated material.

The meeting adjourned at 9:06 a.m.

The next meeting of the St. Louis Site Remediation Task Force is scheduled for February 20, 1996.

Approved February 20, 1996

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Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri



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