MINUTES

St. Louis Site Remediation Task Force Cost Estimate Presentation

January 23, 1996 Meeting

Hazelwood Civic Center East Hazelwood, Missouri

Determination

Participants Attending

Tom Binz, Laclede Gas Kay Drey Jack Frauenhoffer, Mallinckrodt Chemical Bob Geller, MDNR Tom Horgan, U.S. Rep. Talent's Office Eileen O'Connor, Union Electric Sally Price, chair Jim Dwyer, Facilitator Dave Miller, SAIC Sarah Snyder, FUSRAP

Other Interested Parties

Bill Futrell, Bechtel Mark Gibson, Dawn Mining Co. Tjaden Meyer, R.M. Wester & Associates

<u>Support</u>



Agenda Item

<u>Minutes</u>

Call to Order

Jim Dwyer called the meeting to order at 12:19 p.m.

He then turned the meeting over to Dave Miller and Jeff Comer, who would present information about how cost estimates are developed.

Presentation on Cost Estimates

Mr. Miller introduced Jeff Comer, who is a senior cost analyst for SAIC. Ilis job is to provide answers to questions such as "How much would it cost to dig up the haul routes and dispose at Envirocare?" Mr. Comer used overheads to illustrate his presentation:

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<u>Overview:</u>

- why we estimate
- how we estimate
- qualities of good estimates
- analysis of example (DOE's old Alternative 5 of excavating and shipping site wastes to Envirocare) conclusions
- Concidencia

Why Estimate:

- comparison of alternatives
- what-if analysis
- proposal analysis
- budget defense

Mr. Comer said that evaluations of remediation techniques and disposal alternatives are based on more than just the anticipated cost, but that accurate cost estimates are essential.

How We Estimate:

work breakdown structure (WBS), (itemized definition of proposal)

define scope

 develop methodologies (tailor for what going to estimate)

estimate by WBS element

- unit rate (example is \$8 versus \$5 rate for Envirocare and Dawn, respectively)

output analysis (*e.g.*, know that bulldozer can do so much, so figure out how long going to run it to calculate cost)

- contingency (budget allocation for unforseen circumstances; FUSRAP uses 25 percent)
- program support (*e.g.*, activities that support program but are not necessarily tied to the remediation program, such as Task Force support. FUSRAP uses 15 percent for program support in every estimate.)

<u>Qualities of Good Estimate:</u>

- work breakdown structure (WBS)
- sound methodologies
- consistency
- documentation
- defensible conclusions.

Major Cost Elements:

- program support (13 percent)
- contingency (17 percent)
- other remedial action, including monitoring, site development costs, site management and sampling (19 percent)
- excavation and backfill (11 percent)
- transportation and disposal (40 percent)

Mr. Comer said the cost of DOE's old Alternative 5, which was to excavate all contaminated material and ship to Envirocare for disposal, was estimated at \$1 billion after all these elements are included.

He said that Envirocare has a "turn key" contract at the Wayne Site in New Jersey, so he compared the cost for that project with the St. Louis Site. Wayne has one pile that is about 38,000 cubic yards. Mr. Comer said he compared direct versus indirect costs. Envirocare's contract only included direct contract costs, or 61 percent of the total cost. The remaining 39 percent of indirect costs were not accounted for by Envirocare.

Bill Futrell said FUSRAP has a contract with Envirocare to ship 100,000 cubic yards over the next five years. So far about 30,000 cubic yards have been sent to Envirocare. The Wayne contract with Envirocare is separate from this other contract.

Mr. Comer said in conclusion that cost estimates/need to:

use work breakdown structure (WBS)

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be "apples to apples" comparisons

identify areas of risk (clue is if there is a big discrepancy in cost)

apply indirect costs

be a defensible program

Mr. Comer offered to demonstrate the software he uses to develop cost estimates. But he said there are many factors that have to be considered before numbers can be plugged into the program.

For example, Mr. Futrell said the raw cost of shipping by intermodal container is \$180 per cubic yard, but actual cost is closer to \$250 to \$300 per cubic yard because of logistics and other factors that affect the cost. He cited one instance in which FUSRAP had to have a storage facility in Salt Lake City until Envirocare expanded its capacity for intermodal containers.

He added that volume is important as well. A gondola rail car holds about 75 cubic yards, but an intermodal container typically holds only about 15 cubic yards (because of weight limitations).

Ms. Drey said she thought that Mr. Comer should start developing cost estimates for the St. Louis Site. Mr. Frauenhoffer pointed out that, until there are viable scenarios developed by the Task Force, there is no point in developing cost estimates.

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The meeting adjourned at 1:56 p.m.

Approved April 23, 1996

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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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