FE91224

United States Government Department of Energy

memorandum

Oak Ridge Operations

DATE: DEC 28 2001

REPLY TO ATTN OF: EM-95

SUBJECT: *PILOT TEST WORK PLAN IN-SITU CHEMICAL OXIDATION (ICO) OF TRICHLOROETHENE (TCE) IN GROUNDWATER*

TO: *Robert Poe, Assistant Manager for Environmental Safety and Health, SE-30*

CONCURRENCES/ REVIEWED BY:
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In September 2000, the U.S. Department of Energy (DOE) issued an interim record of decision to present the selected interim remedial action to address groundwater contaminated by trichloroethene (TCE), at the Weldon Spring Site Remedial Action Project (WSSRAP). To address the TCE contaminated groundwater at the Chemical Plant Area, south and southwest of the former locations of Raffinate Pits 3 and 4, in-situ chemical oxidation (ICO) was selected from a review of several alternatives. M-K Ferguson Corporation (MK-F) conducted bench tests of ICO in May 2001 to evaluate factors such as effectiveness on TCE, oxidant demand and associated effects of treatment on other groundwater quality parameters such as metal concentrations. Based upon bench test results by several vendors demonstrating effectiveness of chemical oxidation to address the TCE and its associated natural degradation products cis-1, 2-dicnloroethene (CIS), nominal effects on associated groundwater quality, and cost analysis of the treatment, MK-F solicited proposals and work plans for a field pilot test. Uncertainties remain associated with the effectiveness of in-situ chemical oxidation at WSSRAP due to complexities imposed by site geology and hydrology.

WSSRAP is reviewing these documents for the field test of the in-situ chemical oxidation of TCE in ground water. In light of the serious burns which an employee received during an ICO operation at the Portsmouth Gaseous Diffusion Plant (PORTS) the WSSRAP Site Office is requesting the assistance of Brenda Hawks and Jenny Mullins to review the pilot test work plan prepared by ATC Associates, Inc. and Geo-Cleanse International, Inc. (copies will be send to them). We also request that Ms. Hawks and Ms. Mullins make a trip to the site to review the operations sometime in January 2002.

If you have any questions, please contact Joe Enright at (636) 441-8978.

/s/

Pamela Thompson
Project Manager
Weldon Spring Site
Remedial Action Project

cc with attachment added:
Brenda L. Hawks, SE-33
Jenny Mullins, SE-32

cc w/o attachment:
Rodney Nelson, EM-90

EM-95:JEnright:X7006:12/27/01:mmc (M: BrendaHawks-Jenny Mullins ICO TCE Memo)

CONCURRENCES/ REVIEWED BY:	
RTG SYMBOL	EM-95
INITIALS/SIG.	JEnright
DATE	12/27/01
CONCURRENCE: RTG SYMBOL	EM-95
INITIALS/SIG.	PThompson
DATE	12/27/01
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GW-300-304-1.08

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and is not available to the public.

Technical and Commercial Proposal – In Situ Chemical Oxidation of TCE in Groundwater, ATC Associates, Inc.

This document presents the subcontractor's (ATC Associates, Inc. and Geo-Cleanse International, Inc.) approach for the design, build, and performance of the Pilot Scale In-Situ Chemical Oxidation project at the Weldon Spring Site.

DIN - 7115

ATC
ASSOCIATES INC.

Technical and Commercial Proposal
RFP No. 3589-SC-WP568
For

MK-Ferguson, WSSRAP
In Situ Chemical Oxidation of TCE in Groundwater
7295 Highway 94 South
St. Charles, Missouri

Pilot Test Work Plan

In-Situ Chemical Oxidation of TCE in Groundwater

Weldon Spring Site Remedial Action Project

Prepared for: MK Ferguson
7295 Highway 94 South
St. Charles, MO 63304

Prepared by: ATC Associates, Inc.
7988 Centerpoint Drive, Suite 100
Indianapolis, IN 46256
and
Geo-Cleanse International, Inc.
4 Mark Road, Suite C
Kenilworth, NJ 07033

November 2, 2001

WELDON SPRING SITE REMEDIATION PROJECT

In-Situ Chemical Oxidation Pilot Test Work Plan

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