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CONTRACT NO. DE-AC05-86OR21548

REMEDIAL ACTION WORK PLAN FOR THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE

Weldon Spring Site Remedial Action Project
Weldon Spring, Missouri

NOVEMBER 1995 **REV. 0**

U.S. Department of Energy
Oak Ridge Operations Office
Weldon Spring Site Remedial Action Project

Prepared by MK-Ferguson Company and Jacobs Engineering Group

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MK-FERGUSON A MORRISON KNUDSEN COMPANY	
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PLAN TITLE: Remedial Action Work Plan for the Chemical Plant Area of the Weldon Spring Site	

APPROVALS

Department Manager	11/3/95 Date
Compliance Manager	11/6/95 Date
Quality Assurance Manager	11/6/95 Date
Project Director (or Deputy Project Director)	11/7/95 Date

DOE/OR/21548-529

Weldon Spring Site Remedial Action Project

Remedial Action Work Plan for the Chemical Plant Area of the Weldon Spring Site

Revision 0

November 1995

Prepared by

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U.S. DEPARTMENT OF ENERGY
Oak Ridge Operations Office
Under Contract DE-AC05-86OR21548

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ABSTRACT

The primary purpose of the Chemical Plant Area Operable Unit (OU) Remedial Action Work Plan (RAWP) is to describe how the U.S. Department of Energy (DOE) will implement the remedial activities in the *Record of Decision (ROD) for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (DOE 1993). The Chemical Plant Area OU RAWP fulfills the DOE's obligation to submit a primary deliverable document required under the Weldon Spring Site Remedial Action Project (WSSRAP) Federal Facility Agreement (FFA).

1 INTRODUCTION

1.1 Purpose

The primary purpose of the Chemical Plant Area Operable Unit (OU) Remedial Action Work Plan (RAWP) is to describe how the U.S. Department of Energy (DOE) will implement the remedial activities in the *Record of Decision (ROD) for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (DOE 1993). The Chemical Plant Area OU RAWP fulfills the DOE's obligation to submit a primary deliverable document required under the Weldon Spring Site Remedial Action Project (WSSRAP) Federal Facility Agreement (FFA).

1.2 Objectives and Organization

The RAWP has several objectives:

(1) Identify and summarize the legal basis and requirements from the ROD for remedial activities (Section 2.1).

(2) Identify and summarize the remedial activity design elements and processes from the *Conceptual Design Report* (CDR) for Remedial Action at the Chemical Plant Area of the Weldon Spring Site, Volume I, (DOE 1994) (Section 2.2).

(3) Identify and summarize primary remedial activities contained in work packages (Section 3.1).

(4) Describe the process for confirming that remedial activities comply with the legal obligations of the ROD (Section 3.2).

(5) Identify requirements for documenting implementation of the remedial action and the process that the DOE will use to determine appropriate documentation for specific remedial activities (Section 3.2).

(6) Describe the process that the DOE will use to manage nonsignificant, significant, and fundamental remedial action modifications (Section 3.4).

(7) Summarize the DOE and its Contractors project team organization and project schedules (Section 4.1 and 4.2).

The RAWP is organized according to these objectives. Chapter 2 summarizes the legal and design basis for remedial activities set forth in the ROD and CDR. Chapter 3 summarizes remedial activities and processes. Chapter 4 identifies and summarizes project organization, schedules, and compliance documentation.

This RAWP was developed in accordance with existing U.S. Environmental Protection Agency Guidance.[1]

1.3 Scope

This RAWP encompasses all remedial actions for the Chemical Plant Area OU and includes all remedial activities described in the ROD. These remedial actions, which are described in Section 2.2, are grouped into general site, disposal facility, treatment and processing, site closure, and long-term monitoring and maintenance activities.

1.4 Overall Remedial Action Schedule and Reporting Requirements

Implementation of the remedial activities (i.e., construction and operation) began in March 1994 with the contract award for the chemical stabilization and solidification pilot plant. The project is scheduled to be completed with borrow area/haul road restoration in July 2001 and site restoration in September 2002. Detailed project construction schedules are presented in Section 4.2.

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1 OSWER Directive 9355.5-01, *1990 Guidance on Oversight of PRP Performed RD/RA*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, DC, February 1990.

OSWER Directive 9355.0.4.A, *1986 Superfund Remedial Design and Remedial Action Guidance*, Office of Solid Waste and Emergency Response, U.S. Environmental Protection Agency, Washington, DC. June 1986.

As a means of tracking progress of remedial activities, the DOE has agreed to report on remedial design and remedial action milestones for four specific remedial components of the Chemical Plant OU. These components include:

(1) Soils and foundation removal from general OU waste handling and removal activities (part of General Site activities) (Section 2.2).

(2) Chemical Stabilization/Solidification (CSS) Pilot Scale Facility construction and operation (part of Treatment and Processing activities) (Section 2.2).

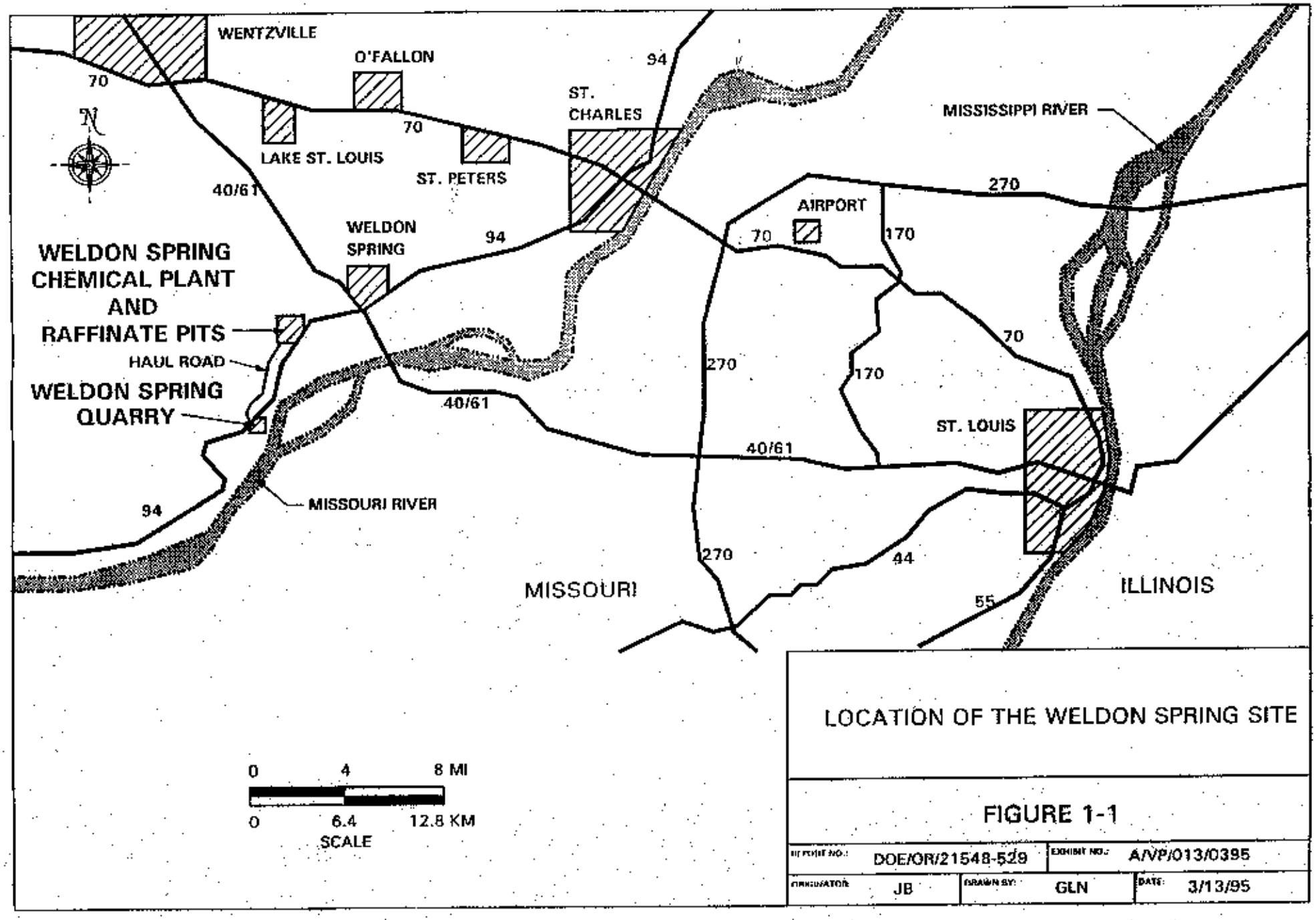
(3) CSS Full-Scale Facility construction and operation (part of Treatment and Processing activities) (Section 2.2).

(4) Disposal facility construction and waste placement (part of Disposal Facility activities) (Section 2.2).

1.5 Chemical Plant Area Operable Unit Background

The Weldon Spring site is located in St. Charles County, Missouri, about 48 km (30 mi) west of St. Louis (Figure 1-1). The site consists of two geographically distinct areas: the 88 ha (217 acre) chemical plant area, which is about 3.2 km (2 mi) southwest of the junction of Missouri (State) Route 94 and U.S. Route 40/62, and a 3.6 ha (9 acre) limestone quarry, which is about 6.4 km (4 mi) south-southeast of the chemical plant area. The chemical plant area and the quarry are accessible from State Route 94, and both are fenced and closed to the public.

The site was initially used by the Army during the 1940s to produce the explosives trinitrotoluene and dinitrotoluene. After extensive demolition, decontamination, and regrading, the chemical plant was built by the U.S. Atomic Energy Commission (AEC, a predecessor of the DOE) to process uranium and thorium ore concentrates during the 1950s and 1960s. Radioactive contaminants are primarily radionuclides of the natural uranium and Th-232 decay series; chemical contaminants include naturally occurring metals and inorganic anions, as well as organic compounds such as polychlorinated biphenlys (PCBs) and nitroaromatic compounds.



LOCATION OF THE WELDON SPRING SITE

FIGURE 1-1

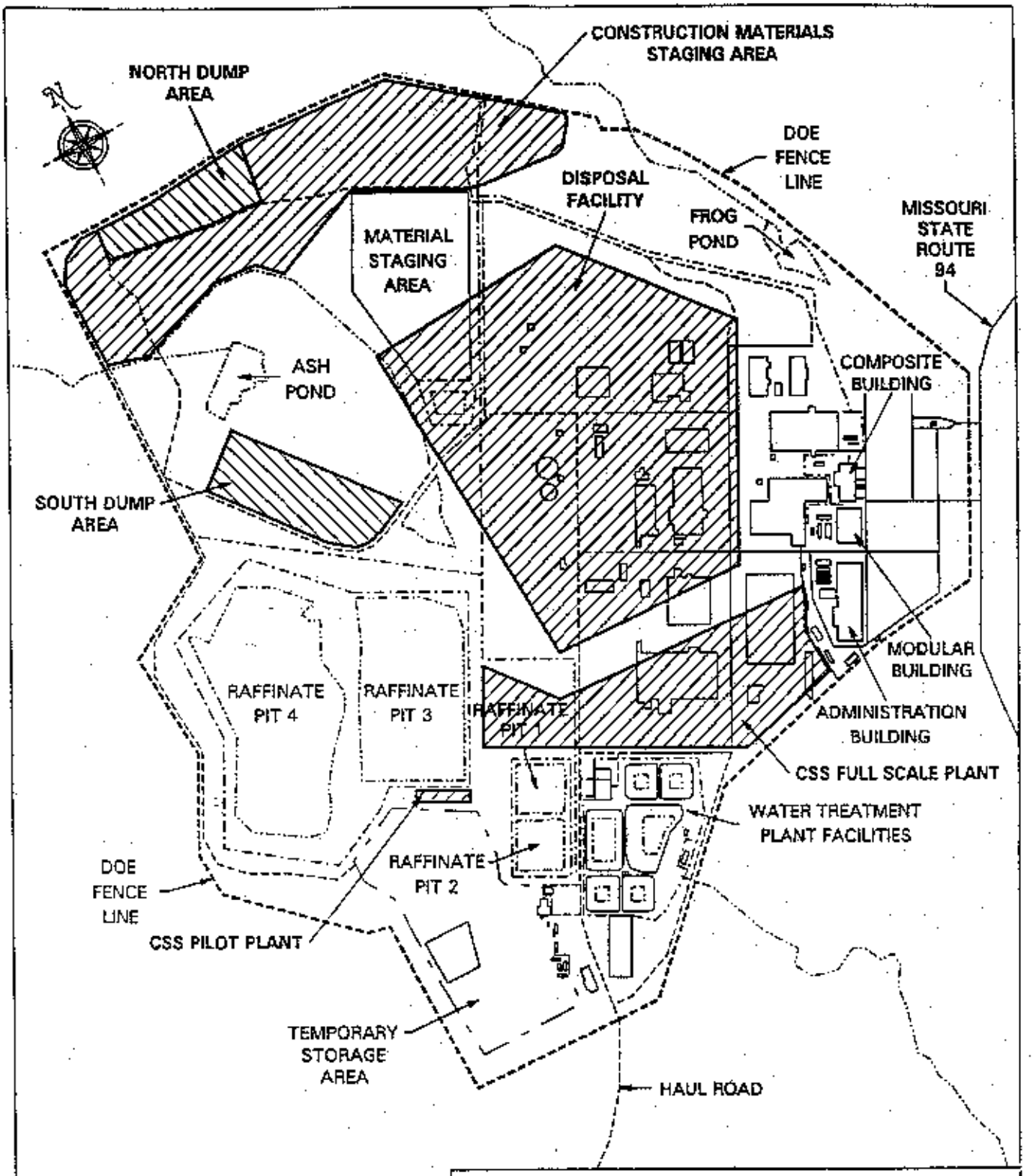
	DOE/OR/21548-529	EXHIBIT NO.:	A/VP/013/0395
ORIGINATOR:	JB	DRAWN BY:	GLN
		DATE:	3/13/95

Site features include foundation remains from dismantled buildings, four raffinate pits, two ponds (Ash Pond and Frog Pond), and two former dump areas (north dump and south dump) (Figure 1-2). Most of the land surface around the buildings is paved or covered with gravel; the remainder of the site contains a variety of grasses and scattered shrubs and trees. Much of the site is routinely mowed, and little undisturbed and/or natural habitat exists except in the northern quadrant. Soil in the two dump areas and at scattered locations throughout the chemical plant is radioactively contaminated; discrete locations also contain elevated concentrations of certain metals and a few organic compounds.

The raffinate pits cover about 10 ha (26 acres) in the southwestern portion of the site. They were excavated from existing soil during the operational period of the chemical plant to receive waste slurry from the processing operations. These pits constitute the most heavily contaminated area and combined contain about 122,336 m^3 (160,000 cu yd) of sludge and 216,000 m^3 (57,000,000 gal) of water. In addition, some drums and rubble from earlier decontamination activities at the chemical plant were disposed of primarily in the fourth pit.

The Ash Pond area covers about 6.9 ha (17 acres) in the northwestern portion of the site. This area received ash from the steam plant during its operational period. Frog Pond covers about 0.3 ha (0.7 acres) in the northeastern part of the site and served as a settling basin for flows from the pilot plant. The combined volume of surface water in these ponds averages about 8,700 m^3 (2,300,00 gal). The four pits and two ponds combined cover about 18 ha (44 acres) and are included on the Wetlands Inventory Map produced by the U.S. Department of the Interior.

The Weldon Spring site was placed in caretaker status from 1969 through 1985, when custody was transferred from the Army to the DOE. In 1985, the DOE proposed designating control and decontamination of the chemical plant, raffinate pits, and quarry as a major project. A Project Management Contractor (PMC) for the Weldon Spring site was selected in February 1986. In July 1986, a DOE project office was established on site and the PMC, MK-Ferguson and Jacobs Engineering Group, Inc., assumed control of the site on October 1, 1986. The quarry was placed on the Environmental Protection Agency's National Priorities List in July 1987. The chemical plant and raffinate pits were added to the list in March 1989.



GENERAL LAYOUT OF CHEMICAL PLANT AREA

FIGURE 1-2

REPORT NO.: DOE/OR/21548-529		EXHIBIT NO.: A/CP/014/0395	
ORIGINATOR: JB	DRAWN BY: GLN	DATE: 3/13/95	

The Chemical Plant Area OU is one of four units that make up the Weldon Spring Site Remedial Action Project (WSSRAP). The other three units are the Quarry Bulk Waste Operable Unit, the Quarry Residuals Operable Unit, and the Site Groundwater Operable Unit. The chemical plant and the quarry are related as to history and purpose, reasonable closeness in proximity, and compatibility with regard to remediation approach. They are considered as one site under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The ROD for the quarry bulk waste was finalized in September 1990, while the ROD for the chemical plant area was finalized in September 1993.

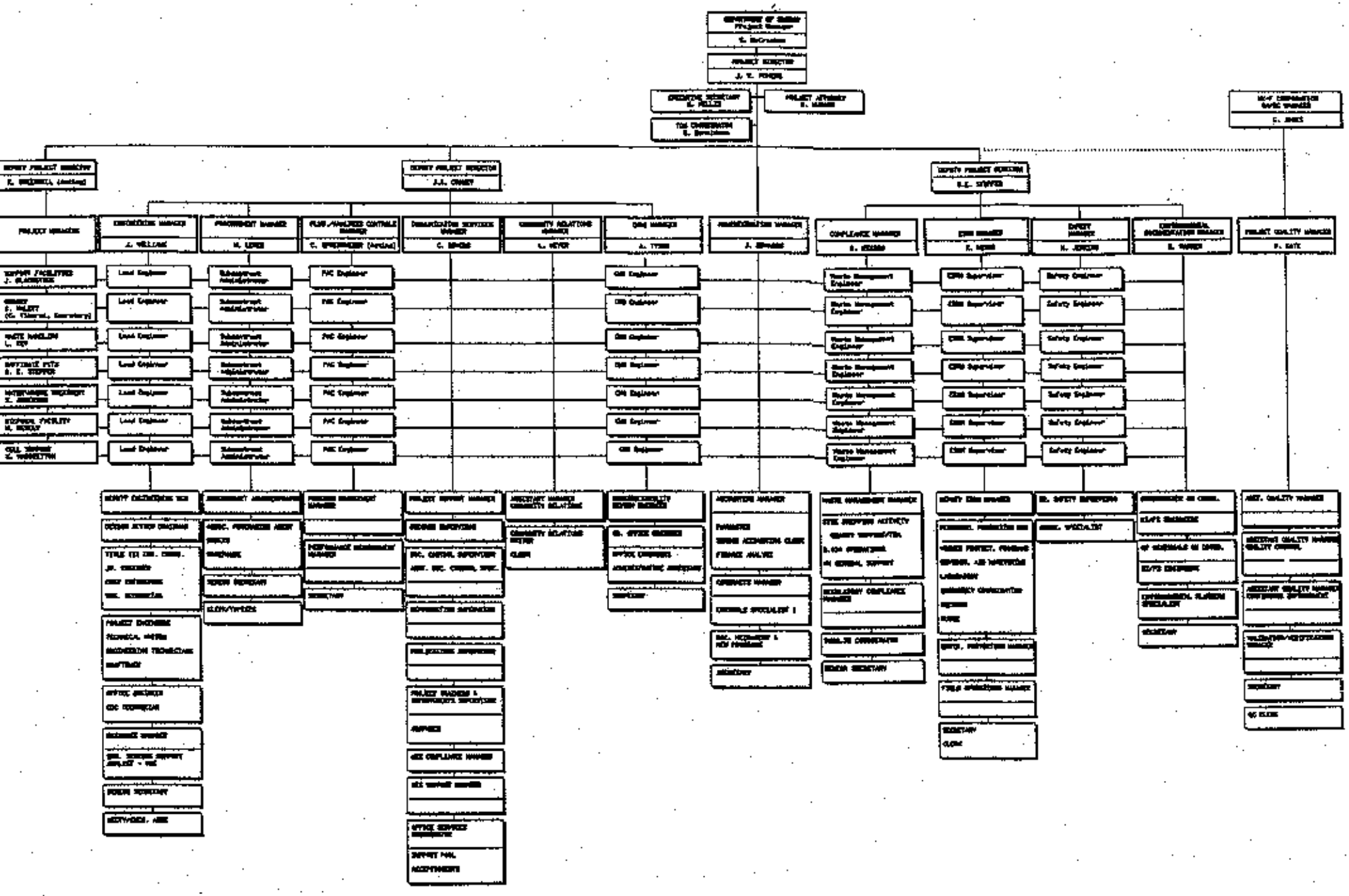
1.6 Organizational Roles and Responsibilities

Figure 1-3 presents a flow chart of organizational roles and reporting responsibilities. The direct line of authority proceeds from the DOE Project Manager to the Project Director for MK-Ferguson, the WSSRAP PMC.

The Project Director's overall responsibility is to manage the WSSRAP and to see that the chemical plant remedial action is completed within applicable contract, schedule, and regulatory requirements. For the chemical plant, the line responsibility flows through a Deputy Project Director to area PMC Project Managers who are responsible for the day-to-day completion of activities and the direction of personnel. Technical support personnel from various departments as shown on Figure 1-3 are assigned to each work area and report directly to that area Project Manager. Other Deputy Project Directors oversee departmental functions that support site activities as described below.

The Construction Management and Operations Department is responsible for overseeing subcontract compliance, performance and coordination of subcontractors. This function includes overall cost and schedule control for all assigned construction and maintenance subcontracts. In addition, the Construction Management and Operations Department is responsible for providing oversight for Operational Readiness reviews.

The Environmental Documentation Department supports the preparation of CERCLA required documentation for OU-related activities such as sampling plans, work plans, remedial investigation/feasibility study reports, RODs, and remedial design/remedial action work plans.



The Compliance Department supports site activities by ensuring that all waste management activities (i.e, generation, characterization, storage, transportation) are accomplished in a manner that complies with appropriate regulatory requirements. The department also facilitates the regulatory compliance of removal and remedial actions through periodic inspections of storage areas and construction activities, and through the tracking of permits, reports, and plans for timely submittal.

Routine environmental monitoring activities (i.e., groundwater, surface water, and air monitoring) are the responsibility of the Environmental Safety and Health Department. The objective of this monitoring is to provide protection of the public and the environment during implementation of remedial activities. Department personnel also provide field-oriented occupational medicine, industrial hygiene and health physics coverage for site activities.

Project scheduling and tracking is a function of the Planning, Analysis, and Controls Department. The Planning, Analysis, and Controls Department tracks the status of each work package for the site through transmittal of a monthly "Schedule Update Packet." PMC Project. Managers inputs to these update schedules are then utilized to control and manage WSSRAP project schedules. This department is also responsible for preparation of project status reports, manpower forecasts, and other related cost/scheduling documentation.

The Safety Department conducts routine inspections of construction activities and site facility operations to facilitate compliance with safety-related DOE Orders, Federal regulations, and site requirements. Department personnel also coordinates and manages the site Security Plan.

Technical support for conceptual design is provided by the Engineering Department. This department is also responsible for securing Title I and Title II engineering design, preparation of bid packages, cost estimating, and scheduling.

The Project Quality Department supports the project through the Quality Assurance Plan, and procedures, and conducting independent assessments, surveillances, and inspections. For purposes of implementing remedial action activities, personnel from this department will provide independent quality control oversight.

The Procurement Department supports site activities by providing subcontract solicitation, and award and administration management. This department also purchases materials and services as required by the project and each work package.

Site wide editing and publications support, records management, and training coordination functions are provided by the Communications Services Department.

Public relations and community awareness programs are the responsibility of the Community Relations Department. This department develops and implements community relations programming through workshops, meetings, preparation of media advisories, updates, and fact sheets related to remedial action activities. The Community Relations Department also provides the interface between the site and the St. Charles County Citizens Commission.

The Administrative Department supports site activities by providing administrative, accounting, property management, and human resources support. Support activities include finance and payrolls, travel and relocation management, administration of prime contracts and technical services contracts, and personnel recruiting.

2 BASIS FOR REMEDIAL ACTION

The remedial action at the Chemical Plant Operable Unit (OU) is based on two primary documents. The Record of Decision (ROD) for Remedial Action at the Chemical Plant of the Weldon Spring Site (DOE 1993) provides the legal requirements that the DOE is obligated to meet under CERCLA. The *Conceptual Design Report* (CDR) *for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* provides the technical basis for compliance with the legal obligations in the ROD. The CDR has been approved by the EPA as fulfilling the requirements of a Remedial Design Work Plan (RDWP), and will be referred to as the RDWP for purposes of this document.

Section 2.1 below, *Record of Decision (ROD) Summary*, describes the legal basis for the remedy. Section 2.1.1 highlights the remediation goals described in the ROD. Section 2.2, *Remedial Design Summary*, describes the remedial design process, summarizes the RDWP and briefly explains the detailed design.

2.1 Record of Decision Summary

The ROD, which the DOE and the U.S. Environmental Protection Agency (EPA) signed in September 1993, provides the legal requirements for remedial action at the Chemical Plant Area OU.

The Chemical Plant Area OU addresses all sources of contamination at the chemical plant area including soils, sludge, sediment, and materials placed in short-term storage as a result of previous response actions (e.g. quarry bulk wastes). The remedial action uses treatment to address the principal risks remaining at the site (e.g., raffinate pit sludges and certain soil from the quarry). Support facility activities (e.g., general site support services, administrative building remodeling) are required for operation of the site and are not unique to the ROD. According to the ROD, the DOE will implement the following remedial actions for this OU:

- Dredge sludge from raffinate pits; excavate sediments from Frog Pond, Ash Pond, and three off-site lakes; and excavate soil from specific locations (including two former dump areas, locations adjacent to the chemical plant buildings on site, and 10 vicinity properties) using standard construction equipment and procedures.

- Remove material stored at temporary facilities on site (i.e., the material storage area, asbestos storage area, Ash Pond) using standard construction equipment and procedures. This material includes bulk waste excavated from the quarry bulk waste operable unit, treatment residuals from the water treatment plants at both the quarry and chemical plant sites.

- Treat certain contaminated materials (e.g., material that fails RCRA characteristic or for structural stability) on site by chemical stabilization/solidification.

- Dispose of treated and untreated materials on site in a facility designed and constructed specifically for the Weldon Spring site wastes.

The DOE and the EPA have agreed that the selected remedial action alternative (remedy) presented in the ROD is protective of human health and the environment. The Missouri Department of Natural Resources (MDNR), as the lead agency for the State of Missouri, concurred with the ROD. The remedy also complies with Federal and State of Missouri requirements that are legally applicable or relevant and appropriate to the chemical plant area remedial action, except as specifically waived pursuant to CERCLA Section 121 (for a list of waivers approved in the ROD see Table 2-1).

Because the selected remedy includes construction of an on-site disposal area (i.e., engineered disposal facility), hazardous substances will remain on site above health-based levels. Therefore, the DOE must complete a review within 5 years of implementation of this action, in accordance with CERCLA, to ensure long-term protection of human health and the environment.

2.1.1 Remediation Goals

The DOE has implemented interim actions to address surface water at the Weldon Spring site. Site groundwater is being addressed as a separate OU. Therefore, remediation goals are

TABLE 2-1 ARARs Waivers for the Chemical Plant Area ROD

REGULATORY REQUIREMENT	CERCLA PROVISION FOR WAIVER
40 CFR 268, Subpart C: Land Disposal Restriction (LDR) placement restrictions.	Section 121(d)(4)(A): alternative is an interim measure and will become a part of a total remedial action that will attain Federal or State ARARs.
40 CFR 268.42, Subpart D: LDR treatment standards based upon use of specified technology.	Section 121(d)(4)(D): the alternative will attain a standard of performance that is equivalent to that required under the otherwise applicable standard, requirement or limitation through the use of another method or approach.
40 CFR 268, Subpart E: LDR storage limitations.	Section 121(d)(4)(C): compliance with requirement is technically impracticable from an engineering perspective.
40 CFR 761.65(a): *Toxic Substances Control Act* (TSCA) requirement for PCB storage and disposal.	Section 121(d)(4)(A): alternative is an interim measure and will become a part of a total remedial action that will attain Federal or State ARARs.
40 CFR 761.75(b)(3): TSCA requirements for bottom landfill liner, system to be at least 50 ft from the historical high water table.	Section 121(d)(4)(D): the alternative will attain a standard of performance that is equivalent to that required under the otherwise applicable standard, requirement or limitation through the use of another method or approach.
40 CFR 264.314(f): restrictions regarding free liquids in CSS grout placed in the disposal facility.	Section 121(d)(4)(B): compliance with requirement will result in greater risk to human health and the environment than the action proposed. Section 121(d)(4)(D): the alternative will attain a standard of performance that is equivalent to that required under the otherwise applicable standard, requirement or limitation through the use of another method or approach.
40 CFR 61, Subpart M: National Emission Standards for Hazardous Air Pollutants (NESHAPs) requirements for asbestos storage.	Section 121(d)(4)(B): compliance with requirement will result in greater risk to human health and the environment than the action proposed.
10 CSR 25.5-262(2)(C)1: packaging, marking and labeling requirements.	Section 121(d)(4)(A): alternative is an interim measure and will become a part of a total remedial action that will attain Federal or State ARARs. Section 12 1(d)(4)(B): compliance with requirement will result in greater risk to human health and the environment than the action proposed.
19 CSR 20-10.040: State Rn-222 limit of 1 pCi/l above background in uncontrolled areas.	Section 121(d)(4)(C): compliance with requirement is technically impracticable from an engineering perspective.

Source: Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site, September 1993, page 4.

only required for soil, stored debris, rubble and waste at the chemical plant area OU. As presented in the ROD, cleanup criteria for key contaminants in site soils were developed from available environmental regulations and guidelines in combination with the results of the site-specific risk assessments. In developing the criteria, the risk assessment determined that background concentrations of certain naturally occurring metals (including radionuclides) corresponded to risks that were 100 to 1,000 times greater than the point of departure (1×10^{-6} risk level) which usually serves as the endpoint for developing cleanup criteria. As a result, remediation goals addressed reducing residual risks to as low as reasonably achievable. Soil

cleanup criteria set forth in the ROD are shown in Table 2-2. The cleanup criteria have been separated into criteria related to surface soils and criteria relating to subsurface soils (defined as soil deeper than 15 cm [6 in.] below the surface). These soils were addressed by separate analyses to ensure that levels remaining would be protective under future scenarios that could involve exposure to currently buried contaminants. The lower potential for exposure to the subsurface soils resulted in the selection of subsurface criteria that are ten times greater than the surface criteria. General areas of soil identified for remediation based upon the cleanup criteria are shown in Figure 2-1.

To complete the remedy, certain waste materials must be treated prior to placement in the disposal facility. Materials which are not structurally stable (i.e., raffinate sludges) or have been determined to be *Resource Conservation and Recovery Act* (RCRA) characteristic hazardous wastes will be treated through the chemical stabilization/solidification process. Some materials (specifically the nitroaromatic soils placed at the TSA) may be treated outside the CSS facility. The planned treatment method for these materials incorporates an in situ CSS process rather than transporting to the CSS facility. Certain RCRA hazardous wastes will be treated by alternative methods as presented in the *Site Treatment Plan for the Weldon Spring Site* (Ref. 12). This *Site Treatment Plan*, which was required by the Federal Facilities Compliance Act for mixed waste stored and generated on-site, will serve as the remedial action work plan for the treatment of mixed wastes. Other regulated wastes (i.e., TSCA and State regulated) will be treated by the same methods as described in the site treatment plan. The primary goal of treatment is to reduce risks associated with the waste materials that represent the principal hazard at the site. Specifically, wastes will be treated to below RCRA characteristic levels, or to provide a structurally stable product for placement. The goal of the disposal facility is to prevent migration of contaminants into the environment. The facility will be constructed in accordance with the substantive RCRA, Uranium Mill Tailings Remedial Action, and *Toxic Substance Control Act* requirements, to meet this remediation goal.

2.2 Remedial Design Summary

The RDWP describes the conceptual design for the remedial action at the Chemical Plant Area OU based on the preliminary design concepts presented in the *Feasibility Study for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (Ref. 3), the *Proposed Plan for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (Ref. 4), and

TABLE 2-2 Radionuclide and Chemical Contaminant Cleanup Standards

	SURFACE[c]		SUBSURFACE[d]	
Radionuclide (pCi/g)	ALARA	Criteria	ALARA	Criteria
Radium-226[a,b]	5.0	6.2	5.0	16.2
Radium-228[a,b]	5.0	6.2	5.0	16.2
Thorium-230[a]	5.0	6.2	5.0	16.2
Thorium-232[a]	5.0	6.2	5.0	16.2
Uranium-238	30.0	120	30	120
Chemical (mg/kg)				
Arsenic	45	75	75	750
Chromium (total)	90	110	110	1,110
Chromium (VI)	90	100	100	1,000
Lead	240	450	450	4,500
Thallium	16	20	20	200
PAHs[e]	0.44	5.6	5.6	56
PCBs[f]	0.65	8	8	80
TNT	14	140	140	1,400

(a) If both Th-230 and Ra-226, or both Th-232 and Ra-228, are present and not in secular equilibrium, the cleanup criterion applies for the radionuclide with the higher concentration.

(b) At locations where both Ra-226 and Ra-228 are present, the cleanup criterion of 6.2 pCi/g (including background) in the top 15 cm (6 in.) of soil, and 16.2 pCi/g (including background) in each 15-cm (6-in.) layer of soil more than 15 cm (6-in.) below the surface, applies to the sum of the concentrations of these two radionuclides.

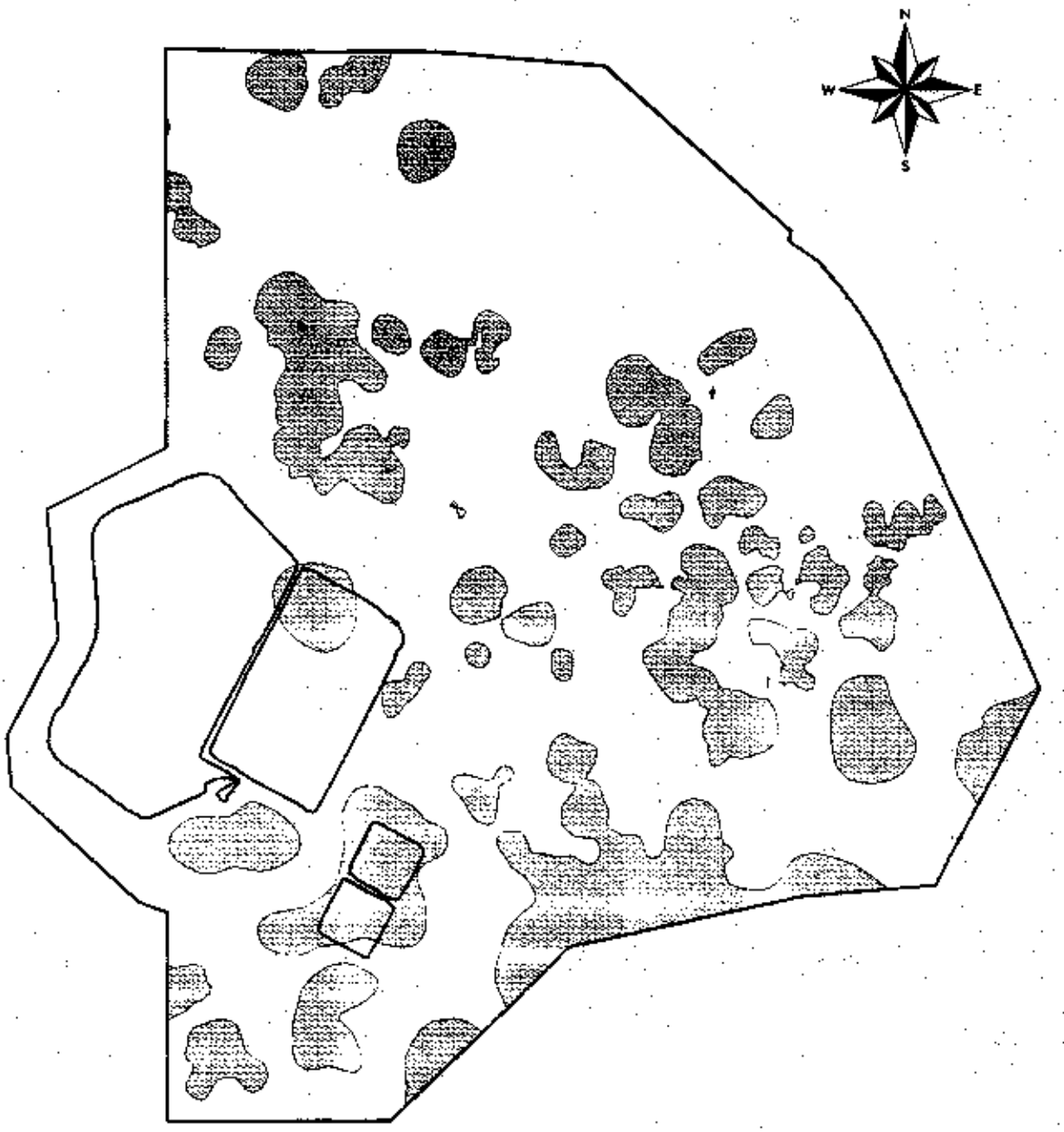
(c) Values listed for surface soils apply to contamination within the upper 15 cm (6 in.) of the soil column.

(d) Values for subsurface apply to contamination in soils below 15 cm (6 in.) unless otherwise noted.

(e) Benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, and ideno(1,2,3-cd)pyrene.

(f) Aroclor 1248, Aroclor 1254, Aroclor 1260.

Source: *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site* (Ref. 1)



Soil Identified for Remediation

600 300 0 300 600 FEET

200 100 0 100 200 METERS

AREAS OF SOIL IDENTIFIED FOR REMEDIATION BASED ON CLEANUP CRITERIA

Figure 2-1

REPORT NO.: DOE/OR/21548-529		EXHIBIT NO.: A/CP/077/0395	
ORIGINATOR: JB	DRAWN BY: WSSRAP GIS	DATE: 3/95	

committed to in the ROD (Ref. 1). Functional and performance requirements for each remedial activity are detailed in the RDWP. The conceptual design was prepared in accordance withDOE Order 4700.1 (March 1987), Project Management procedures (PMP-05-1, January 1990), and Title I design requirements (PMP-06, May 1985).

The RDWP is the transitional phase which turns the requirements set forth in the ROD into detailed design criteria. Title II design (i.e., detailed design) uses the conceptual design and criteria established in the RDWP as the basis for remedial design to achieve the requirements in the ROD. Title III, the procurement and implementation of the design (i.e., remedial approach) developed in Title II, is covered in this *Remedial Action Work Plan* and explained specifically in Chapter 3.

The RDWP groups the remedial action at the Chemical Plant Area OU into five primary remedial activities that, together, will achieve the objective of removing, treating, and disposing of waste on site. The five primary remedial activities are as follows:

(1) **General Site.** These activities include the construction of infrastructures necessary to implement the remedy as well as waste removal and storage. Specific components include: initiating waste removal operations; waste handling and transportation; the construction of the construction material staging area, site roads, and site drainage; acquisition and storage of borrow material; and construction and operation of administrative support facilities necessary to implement the remedy. Site waste removal operations conducted under this RAWP encompass all vicinity property locations identified during the chemical plant area remedial investigation.

(2) **Disposal facility.** The construction and operation of the on-site engineered disposal facility is one of the primary remedial activities for the chemical plant area OU. This remedial activity encompasses all components related to construction and operation of the disposal facility. These components include: cell siting, cell configuration/optimization, cell foundation, liner and leachate collection and removal system, waste containment system, cell drainage/water management system, waste placement operations and maintenance.

(3) **Treatment and processing.** The waste treatment and processing remedial activity encompasses treatment and processing of selected contaminated soils and sludges by chemical stabilization/solidification. The contaminated soils at the TSA may be treated with an in situ CSS process, rather than being transported to the CSS plant. Other selected wastes (e.g., solid and liquid RCRA hazardous wastes stored in Building 434, polychlorinated biphenyl-contaminated soils, sludges, and liquids, and arsenic contaminated wood and other RCRA debris stored at the ASA and TSA) will be treated by the alternative treatment methods presented in the *Site Treatment Plan.* Components of this remedial activity encompass construction and operation of the pilot scale facility and the full-scale CSS facility, including systems for dewatering, decontamination and additional treatments for other wastes.

(4) **Site closure.** This remedial activity refers to those activities which follow completion of treatment operations and closure of the disposal facility. It includes removal of temporary support facilities, removal of temporary haul and access roads, construction of final roads, implementation of site runoff controls, establishment of final security, and site revegetation.

(5) **Long-term monitoring and maintenance.** Long-term (post-closure) monitoring and maintenance activities for the chemical plant area will, in general, be in accordance with RCRA requirements set forth in 40 CFR 264. Subpart G of 40 CFR 264 specifies a 30-year post-closure care period for maintenance of the cover, leachate collection system and groundwater monitoring system. 40 CFR 264, Subpart F, specifies general groundwater monitoring requirements.

Actual performance of long term monitoring and maintenance activities are not part of the PMC's scope of work. However, the PMC will develop monitoring and maintenance plans, as well as the design of a groundwater compliance monitoring network.

3 REMEDIAL ACTION APPROACH

The remedial action for the Chemical Plant Area Operable Unit (OU) will be implemented as required by the Record of Decision (ROD) and specified in the *Remedial Design Work Plan* (RDWP). The remedial action approach is to implement the required remedial activities as individual work packages. Together, the work packages comprise the Chemical Plant Area OU remedial action.

This chapter has six purposes: (1) identify the specific existing work packages that comprise each major remedial action component described in the RDWP (Section 3.1); (2) describe the process for incorporating new work packages into the remedial action (Section 3.2); (3) describe the process used to identify existing documentation and any supplemental documentation required in addition to this RAWP, prior to procurement of individual work packages (Section 3.2); (4) describe the process for procuring subcontractors (Section 3.3); (5) describe the process used to manage fundamental, significant, and nonsignificant changes to requirements in the ROD during remedial action (Section 3.4); and (6) describe the process used to determine when remedial goals are met (Section 3.5).

Various responsibilities for the PMC Project Managers (PM), the Environmental Documentation and Regulatory Compliance Departments, and U.S. Department of Energy (DOE) are identified throughout Section 3. These responsibilities are summarized at the end of this section.

3.1 Chemical Plant Area Operable Unit Remedial Action

Implementation of specific remedial activities are planned and organized by a work package. Work packages are derived from the RDWP which is based on the requirements in the ROD. Therefore, each work package entails specific remedial activities that support compliance with the ROD. Table 3-1 lists requirements in the ROD and their corresponding remedial activities in the RDWP. Table 3-2 lists all active and planned work packages by RDWP activity, with a brief description of each work package.

TABLE 3-1 Crosswalk of the ROD against the RDWP

ROD REQUIREMENT	RDWP ACTIVITY
Dredge sludge from raffinate pits; excavate sediment from Frog Pond, Ash Pond, and 3 off-site lakes; and excavate soil from specific locations (including two former dump areas, locations adjacent to the chemical plant building on-site, and 10 vicinity properties off-site) using standard construction equipment and procedures.	General site activities Disposal facility activities
Remove material stored at the temporary facilities on-site (including bulk waste excavated from the quarry; treatment residuals from the water treatment plants at the quarry and the chemical plant area; and building material from the chemical plant area) using standard construction equipment and procedures.	Disposal facility activities
Certain contaminated materials such as the raffinate pit sludges and portions of quarry soil will be treated on-site by chemical stabilization/solidification. Continued evaluation of vitrification as a contingency treatment option.	Treatment and Processing Activities
Treated and untreated materials will be disposed on-site in a facility designed and constructed specifically for the Weldon Spring site wastes.	Disposal Facility Activities
Final site layout and design will include all practicable means (e.g., sound engineering practices and proper construction practices) to minimize environmental impacts.	Site Closure Activities Long term monitoring and maintenance activities. Disposal facility activities

TABLE 3-2 Remedial Activity Work Packages

WORK PACKAGE	DESCRIPTION	WBS SUMMARY
RDWP Area: General Site Activities		
WA006	Raffinate Pits Sludge Removal	Cutter-head dredge combined with a slurry pump and delivery pipeline to the dewatering facility.
WA007	Raffinate Pits Liner/Soil Characterization/Remedial Design	The observational approach applies to raffinate pits soils removal operations because unexpected conditions, such as the presence of unknown debris and more extensive contamination, may be encountered.
WA013	Additional Decon Pad	Install a pad for decontamination of equipment.
WP253	Construction Material Staging Area	The CMSA is required for the temporary storage of construction materials during the construction of the Weldon Spring on-site disposal facility.
WP388	Borrow Area Development	Fence; restricted access warning signs; site entrance gate; clear vegetation; construct temporary roads; lay out area of stockpiles, material staging, and material processing; and construct sediment control structures.
WP389	Borrow Area Haul Road	Road for transporting uncontaminated materials from the borrow area.
WP397	Raffinate Pits Debris Characterization	Building debris and other rubble were previously dumped into Raffinate Pit 4. This material will require characterization and removal once the water and sludge have been removed or in conjunction with sludge removal.
WP397R	Raffinate Pits Debris Consolidation	Building debris and other rubble previously dumped into Raffinate Pit 4 will require removal once the water and sludge have been removed or in conjunction with sludge removal.

TABLE 3-2 Remedial Activity Work Packages (Continued)

WORK PACKAGE	DESCRIPTION	WBS SUMMARY
WP399	CP Drainage Control Facilities	Construction of a series of drainage control structures designed to meet acceptable sediment levels for off-site discharge and the Ash Pond Isolation Dike. This also includes facilities necessary to segregate runoff from contaminated and noncontaminated areas.
WP420	Foundations and Contaminated Soils Removal	Includes the removal of foundations, slabs, columns and piers; transport and sizing of concrete materials to on-site storage; and removal and transport of chemical plant area clean and contaminated soils.
WP443	APID Modifications	Surface water drainage will be modified to divert water flow around the chipped wood storage area (CWSTA). This will prevent CWSTA leachate from flowing off site.
WP447	Berm Repair	Interim stabilization of Raffinate Pit 4 berm.
WX400	Raffinate Pit Restoration	Following removal of the water, sludges, clay bottom and underlying soils if required, backfill the raffinate pits to provide suitable drainage conforming to site drainage and restoration plans.
WP461	VP-9 Remediation	Remediation of contaminated soils and transportation to the chemical plant site.
RDWP Area: Disposal Facility Activities		
WP423	Cover Test Plot Construction	Design, construction, and testing of the disposal cell cover system.

TABLE 3-2 Remedial Activity Work Packages (Continued)

WORK PACKAGE	DESCRIPTION	WBS SUMMARY
WP437	Cell Construction	Design, clean construction, and testing for the disposal cell operations and closure activities. The disposal cell provides for the encapsulation of all materials removed from the quarry, the raffinate pits, the chemical plant, and the vicinity properties. Includes removal and transport of chemical plant area clean and contaminated soils.
WP449	CSS Test Fill	Pilot study of waste placement of grout, soil, and debris.
RDWP Area: Treatment and Processing Activities		
WP354	CSS Pilot Facility	Construction and operations of a CSS pilot plant facility. The purpose is to develop essential design criteria for each unit operation and associated equipment for design of the full-scale plant.
WP370	CSS Pilot INSTR Calibration SVCS and Maintenance	Provide instrument calibration at the quarry water treatment plant, site water treatment plant, mobile water treatment plant, waste water treatment plant, and CSS pilot facility.
WP411	CSS Treatment Facility	Construction and operations of the full-scale CSS plant.
WP436	CSS Pilot Facility Operations Staff Services	Provide operators to staff the quarry water treatment plant, site water treatment plant Train 2, mobile water treatment plant, CSS pilot facility and maintenance services at the wastewater treatment plant.
WP448	CSS Pilot Facility Maintenance services	Provide mechanical and electrical maintenance services on an as-needed basis for the five water treatment plants and the CSS pilot facility.

TABLE 3-2 Remedial Activity Work Packages (Continued)

WORK PACKAGE	DESCRIPTION	WBS SUMMARY
RDWP Area: Site Closure Activities		
WA009	Site Restoration	Removal of temporary support facilities construction or treatment operations, the removal of the temporary haul access roads, and the design and layout of final roads, site reclamation, groundwater monitoring wells, and surface control structures that will remain after site closure.
WA010	Borrow Area/Haul Road Restoration	Reclaim and revegetate the borrow area haul road.
WX720	Remove TSA and Sludge Processing Facility.	Removal and disposal after soil removal activities are complete.

NOTE: The designation of "WA" or "WX" indicates proposed work packages; currently, no work package planners have been approved for these activities.

Discussions are ongoing between the DOE and the Missouri Department of Conservation regarding the drainage of the Busch Lakes. The 10 vicinity properties referenced in Table 3-1 include VP-9 and other vicinity properties that have not yet been remediated. The Southeast Drainage will be remediated as an interim removal action. Characterization studies and EE/CA documentation activities are currently underway for this vicinity property.

Long-term monitoring and maintenance is the one remedial activity described in the RDWP which does not currently have planned work packages. When work packages are developed, they will be implemented and documented as described in Section 3.2.

Some site activities related to the remedial action are not implemented under a work package approach (i.e., they are conducted using on-site personnel, not subcontractors). Examples of such activities would include biodenitrification studies of the raffinate pit water and sludge, decontamination of PCB capacitors, and treatment of some Building 434 wastes. In these cases, the EPA will be notified through updates to the Federal Facility Agreement

Quarterly Reports, which will provide descriptions of the activities, along with start and finish dates.

3.2 Implementation of Work Packages

The active work packages do not represent all activities needed to comply with the ROD. When a new work package is identified, the responsible PMC Project Manager (PM) will develop a Work Package Planner for submittal to the DOE. The purpose of the Work Package Planner is to describe the general scope, estimated schedule, and estimated cost of the proposed work package. An example of the Work Package Planner is shown in Appendix A.

Once the DOE approves the Work Package Planner, the development of the work package begins. In general, a work package consists of the following documents: Invitation for Bid, Special Conditions, General Provisions and General Conditions for Construction Subcontracts, Pricing Schedules, the Super Health and Safety Plan, Specifications Sections, and a Subcontractor Submittal Checklist. The Specifications Sections are tailored according to the scope of the work package (i.e., they may cover design, earthwork or construction activities). Prior to subcontract award, the PM will identify documentation required for each work package to supplement this RAWP (see Table 3-3 for a list of key remedial design/ remedial activity (RD/RA) documents). The Work Package Documentation form is used to identify additional specific work package documentation (see Appendix B). The submittal checklist, which identifies subcontractor documentation requirements, will be appended to this form. The objective of this form is to:

- Reiterate scope from the Work Package Planner.
- Provide projected start and completion dates.
- Identify the project manager and/or remedial action team.
- To describe why the proposed work package is necessary to support compliance with the Chemical Plant Area OU ROD, as in Table 3-1.

- To identify which RAWP remedial grouping (e.g., general OU activities, treatment, disposal, closure, long-term monitoring) the work package supports, as in Table 3-2.

TABLE 3-3 Key RD/RA Document Hierarchy

DOCUMENT	DESCRIPTION
Chemical Plant OU Record of Decision	Legal requirement for action. All other documents will guide and support compliance.
Remedial Design Work Plan	Sets the conceptual design criteria for the remedial action selected in the ROD. Detailed design (i.e. Title II) is based on the RDWP.
Remedial Action Work Plan	Explanation of the procurement and implementation of the required remedial action.
Work Package Planner	Establishes the scope, cost, and schedule of new work packages.
Work Package Documentation Form	Identifies documentation (in addition to the RAWP) that is applicable to specific remedial activities conducted under an individual work package. Also identifies which RDWP area the new work packages supports, along with why it is necessary to support compliance with the ROD.

- Identify planning documents that are specifically applicable to the remedial activities conducted under the work package.

- Note the location or identify by reference the applicable planning documents in existence.

Section 4.2 provides schedules for each existing work package related to the Chemical Plant Area OU. As a part of the Work Package Documentation form, the PM will note the projected start dates and completion dates for work package activities.

The PM responsible for the work package being subcontracted is responsible for completing the Work Package Documentation form. The completed Work Package

Documentation form will be provided to, and reviewed by, the Environmental Documentation Department. The Environmental Documentation Department will provide the completed Work Package Documentation form to the DOE and the Compliance Department.

Prior to the subcontractor beginning work, all supplemental documentation identified in the Work Package Documentation Form will be completed for planned work packages.

For all active work packages, the completed Work Package Documentation forms and submittal checklists are in Appendix C.

Through the Federal Facility Agreement Quarterly Report, the DOE will inform the U.S. Environmental Protection Agency and the Missouri Department of Natural Resources of new work packages and how they support compliance with the Chemical Plant Area OU ROD. Work Package Documentation forms will be provided as updates to this RAWP in the Quarterly FFA Report for each work package being procured or amended.

The work package closeout process is initiated upon conclusion of the work set forth in the work package documents. Once all work is completed, the responsible Construction Engineer (CE) conducts a punchlist inspection and testing as outlined in the CM&O Department Guidance No.3, *Punchlist Inspection and Testing*. After the punchlist inspection is performed, the CE completes the Subcontract Final Payment Coordination form and routes it for signature approval. When this form is signed by all affected department and project managers, the work package is considered to be closed-out in terms of the work completed and final payments made. All applicable documentation relating to the specific work package is then compiled and inventoried prior to shipment for off-site storage.

Various types of reports, forms and schedules from nine individual departments comprise work package closeout documents. An overview of such closeout documents is provided below.

- Procurement Department: Subcontract documents, bid bonds, payment and performance bonds, insurance information, change orders, and procurement strategy plan.

- CM&O Department: CE's daily report, manhour reports, subcontract closeout forms, photographs, and schedules.

- Engineering Department: 30%/60%/90% design drawings, excavation permits, survey notes, technical memoranda, final estimates, work package planner, and vendor material information.

- ES&H Department: Field operations surveillance forms, health and safety logbooks, radiation contamination survey forms, task specific safety assessments, and contamination control work permits.

- Safety Department: Safety inspection reports, weekly safety meeting notes, incident/accident reports, and critiques.

- PAC Department: Schedule overview and progress payment quantity verification

- Compliance Department: MSDS review and evaluation forms, waste minimization assessment summaries, transfer of waste material forms, and disposition documentation forms.

- Project Quality Department: Audit reports, inspection reports, corrective action requests, stop work orders, and lessons learned reports.

- Administration Department: Vendor audits, final payment vouchers, and equipment dispositions.

3.3 Work Package Procurement

All subcontractors at the WSSRAP are procured under Federal Acquisition Regulations (FAR) guidelines. Subcontractors submitting proposals will be evaluated according to technical capabilities, knowledge, experience, and cost. Work packages will be awarded to the lowest cost, responsive subcontractor who is technically qualified. Subcontracts will preferably be firm, fixed-price awards. As work packages are procured, the DOE will inform the EPA and the MDNR through the *FFA Quarterly Report* of subcontractor awarded procurements.

3.4 Remedial Action Change Management

Three types of changes in the Chemical Plant Area OU remedial action are possible that affect compliance with the requirements in the Chemical Plant Area OU ROD (OSWER Directive 9335.3-02): (1) Fundamental changes in the remedial activities that do not meet the requirements set forth in the ROD or that incorporate remedial activities not covered by the scope of the ROD or treatment that differs significantly with respect to cost of the remedy; (2) Significant changes in remedial activities that meet the requirements set forth in the ROD, but constitute a major change in remedial approach as defined in the design and remedial documentation (e.g., change in performance or functional design requirements, scope, or cost of action) and (3) nonsignificant changes in remedial activities, which constitute minor changes falling within the normal scope of work but do not significantly affect the scope, performance, or cost of a remedy.

Procedure ED-7, *Evaluation of Post-ROD Changes*, establishes the method for identifying and evaluating changes to the ROD. The Environmental Documentation Department will review documentation pertaining to proposed changes to a component of a remedial action. The change is evaluated with respect to compliance with the ROD, and the level of change will be based upon the categories of post-ROD changes as defined above.

Once the initial determination is made, a draft Classification of Post-ROD Changes at the Weldon Spring Site form (Appendix D) is sent to the DOE and regulatory agencies for a review period of one week (seven working days). After the DOE and regulators agree on the appropriate change, the forms are finalized for documentation purposes.

For any fundamental changes to the ROD, the DOE will amend the ROD. A ROD amendment will require revision of the remedial approach, design documentation, remedial action work plan, and any work package supplemental plans impacted by the change. DOE will immediately inform the EPA and the MDNR of any fundamental changes, its impact to remedial activities, and schedule for the ROD revision.[1]

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[1] National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Section 300.435(c)(2)(ii), March 8, 1990.

TABLE 3-4 Responsibility Assignment Matrix

ACTIVITY	RESPONSIBILITY			
	PROJECT MANAGER	ENVIRONMENTAL DOCUMENTATION DEPARTMENT	COMPLIANCE DEPARTMENT	DOE
Prepare Work Package Planner	•			
Prepare submittal checklist	•			
Inform EPA and MDNR of new work packages through the FFA Quarterly Report			Provide assistance	•
Inform EPA and MDNR of upcoming work packages being procured through the FFA Quarterly Report			Provide assistance	•
Inform EPA and MDNR of subcontractor awarded procurements through the FFA Quarterly Report			Provide assistance	•
Prepare Work Package Supplemental Documentation	•			
Review the Work Package Supplemental Documentation		•		
Submit the Work Package documentation form to DOE/Compliance Department		•		

TABLE 3-4 Responsibility Assignment Matrix (Continued)

Provide the Work Package Supplemental Documentation to EPA and MDNR as updates in the FFA Quarterly Reports			Provide assistance	•
Notify the Environmental Documentation Department of any changes in the scope or activities of specific work packages	•			
Complete classification of Post-ROD Change forms.		•		
Inform EPA and MDNR of any fundamental changes				•
Amend Chemical Plant OU ROD for any fundamental changes		Provide assistance	Provide assistance	•
Inform EPA and MDNR by letter if there is a significant change				•
Develop an Explanation of Significant Differences for any significant changes		Provide assistance		•
Inform EPA and MDNR of any nonsignificant changes to the ROD through the FFA Quarterly Report.		Provide assistance	Provide assistance	•

For significant changes to the ROD, the DOE will develop an Explanation of Significant Differences (ESD). A significant change may require revision of the design documentation,

remedial action work plan, and any work package supplemental plans impacted by the change. The DOE will inform the EPA and the MDNR of any significant changes by letter describing the significant change, its impact to remedial activities and propose a resolution and schedule for development of the ESD.

For nonsignificant changes to the ROD, changes will be noted in the *Federal Facility Agreement (FFA) Quarterly Report*. A nonsignificant change will not result in modification of any compliance documentation.

3.5 Remedial Action Goals Attainment

Section 2.1.1 identifies the remedial goals established in the Chemical Plant Area ROD. For waste removal, the method for establishing attainment of the remedial action goals (i.e., meeting risk-based soil cleanup levels) is provided in the *Chemical Plant Area Cleanup Attainment Confirmation Plan* (Ref. 10). For treatment and disposal of wastes, the methods for confirming attainment of remedial action goals are through the achievement of regulatory based concentration levels and the design, construction, and operation of the chemical stabilization/ solidification plant and disposal facility. This will be in accordance with design performance and functional requirements as specified in the RDWP, the construction specifications in the construction documents (to be developed), and in the procedures listed in the operations and maintenance manuals (to be developed) for the respective facilities. These requirements and specifications, which guide the designed development of the CSS plant and disposal facility, incorporate ROD specifications and requirements for design and agency comments regarding design, as well as both facility and materials testing elements.

4 OPERABLE UNIT MANAGEMENT APPROACH

4.1 Remedial Action Team

Remedial action teams have been established for each work package by the Project Managers. Each team is responsible for managing all activities associated with their work package. Project Managers and their respective areas of responsibility are shown in Figure 4-1. The teams will be identified on the Work Package Documentation form.

4.2 Project Schedule

Table 4-1 lists the construction schedules for each work package. These dates were obtained from the WSSRAP project schedule (dated 01/25/95). The schedule shows the start and finish dates of each activity from award to completion using the forecast or actual start and finish dates. These dates are used for planning purposes only and are not to be considered feasible milestone dates. Impact to actual milestone schedules will be reported as updates in the *Federal Facilities Agreement Quarterly Report*. In addition, Table 4-1 groups the work packages by Remedial Design Work Plan activities.

4.3 Project Planning

This section describes the umbrella documents that are applicable to the Chemical Plant Area remediation. These documents are available through the Communication Services Department.

4.3.1 Quality Assurance Program Plans

The WSSRAP Quality Program formally provides for the planning and accomplishment of quality affecting activities under controlled conditions and with independent oversight. The chemical plant area removal activities are governed by the WSSRAP *Quality Program Plan* and the *Environmental Quality Assurance Project Plan*. These documents describe appropriate management control systems to ensure achievement of quality and quality improvement in a planned and systematic manner.

Figure 4-1 Project Management Organization for the Chemical Plant Operable Unit

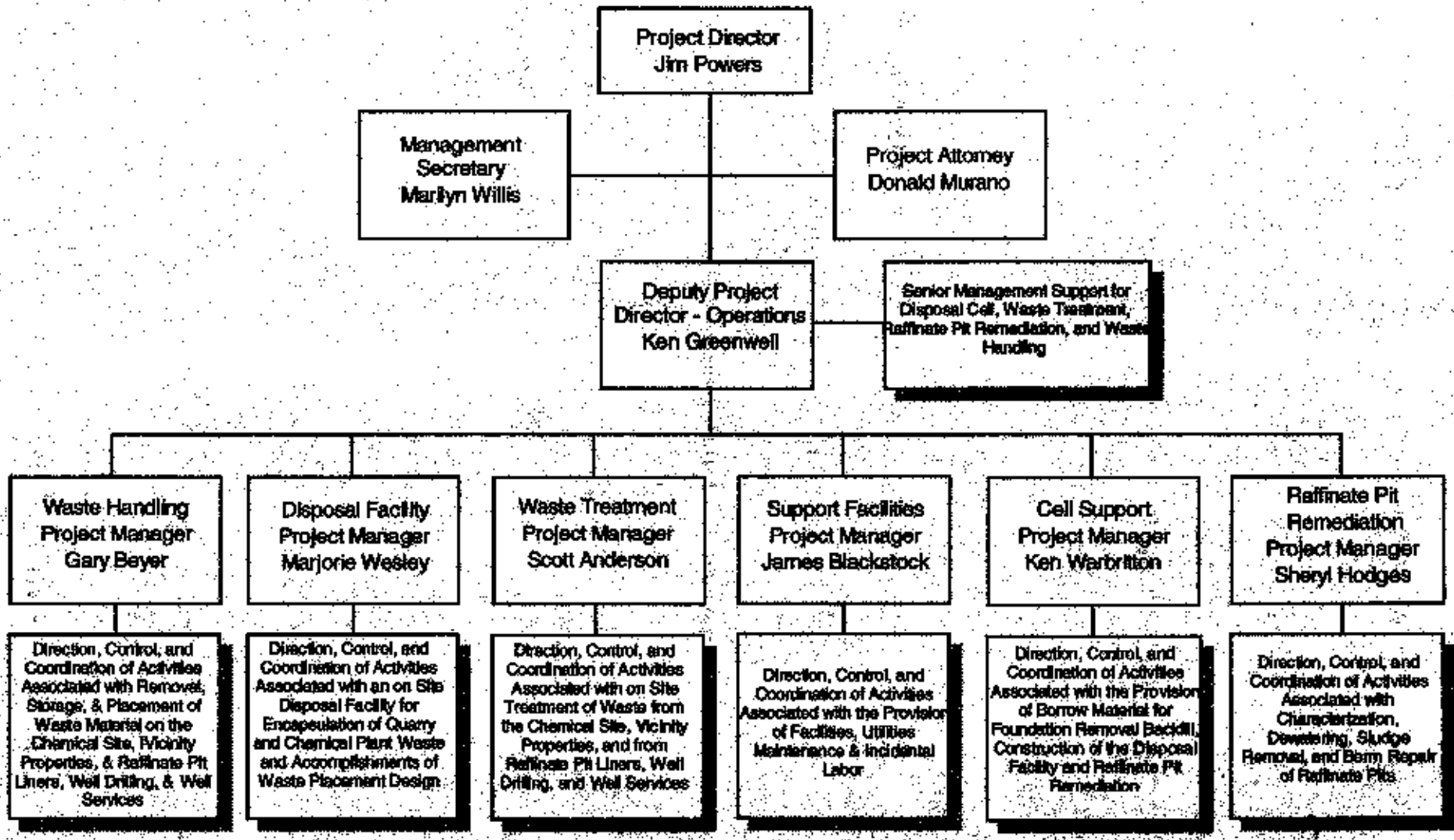

TABLE 4-1 Schedule for Work Packages from the WSSRAP Project Schedule

WORK PACKAGE	DESCRIPTION	START DATE	FINISH DATE	PROJECT MANAGER
RDWP Area: General Site Activities				
WA006	Raffinate Pits Sludge Removal	04/21/98	08/01/99	Sheryl Hodges
WA007	Raffinate Pits Liner/Soil Characterization/Remedial Design	09/22/98	01/11/00	Sheryl Hodges
WP397	Raffinate Pits Debris Characterization	01/19/95	05/05/95	Sheryl Hodges
WP397R	Raffinate Pits Debris Consolidation	07/15/96	05/10/97	Sheryl Hodges
WP447	Berm Repair	09/27/94	12/07/94	Sheryl Hodges
WA013	Additional Decon Pad	05/30/96	10/26/96	Ken Warbritton
WP253	Construction Material Staging Area	08/23/95	05/18/96	Ken Warbritton
WP357	General Wood Consolidation and Chipping	08/95	11/95	Gary Beyer
WP375M	Ash Pond Water Improvements	08/95	12/95	Gary Beyer
WP388	Borrow Area Development	07/12/95	02/13/96	Ken Warbritton
WP389	Borrow Area Haul Road	08/23/95	05/18/96	Ken Warbritton
WP399	CP Drainage Control Facilities	03/23/95	05/15/96	Gary Beyer
WP420	Foundations and Contaminated Soils Removal	10/95	08/97	Gary Beyer
WP456	Highway 94 Realignment	12/18/95	08/30/96	Ken Warbritton
WP457	Army Vicinity Properties 4 and 5 Remediation	TBD	TBD	Ken Warbritton

TABLE 4-1 Schedule for Work Package from the WSSRAP Project Schedule (Continued)

WORK PACKAGE	DESCRIPTION	START DATE	FINISH DATE	PROJECT MANAGER
WP458	Army (DA) Vicinity Properties 1,2,and 3 and Missouri Department of Conservation (MDC) Vicinity Properties 3,4,and 5 Remediation.	TBD	TBD	Ken Warbritton
WX400	Raffinate Pit Remediation	12/17/98	10/15/00	Gary Beyer
WP461	VP-9 Remediation	TBD	TBD	Gene Valett
WX530	Site Contaminated Soils Removal	12/08/97	07/21/98	Gary Beyer
RDWP Area: Disposal Cell Activities				
WP423	Cover Test Construction	02/02/96	06/05/96	Marjorie Wesley
WP437	Disposal Facility	01/13/97	11/27/01	Marjorie Wesley
WP449	CSS Test Fill	06/23/95	09/24/95	Marjorie Wesley
RDWP Area: Treatment and Processing Activities				
WP354	CSS Pilot Facility	03/23/94	01/13/95	Scott Anderson
WP370P	CSS Pilot INSTR Calibration SVSC and Maintenance	09/23/93	09/23/96	Scott Anderson
WP411	CSS Treatment Facility	03/97	06/98	Scott Anderson
WP436	CSS Pilot Facility Operations Staff Services	01/19/95	11/10/97	Scott Anderson
WP448	CSS Pilot Facility Maintenance Services	01/19/95	02/02/98	Scott Anderson
WP443	APID Modifications	03/20/95	05/08/95	Gary Beyer
WP460	CSS O&M Services	09/98	11/99	Scott Anderson
WP462	CSS Sludge Thickener	03/96	11/98	Scott Anderson

TABLE 4-1 Schedule for Work Package from the WSSRAP Project Schedule (Continued)

WORK PACKAGE	DESCRIPTION	START DATE	FINISH DATE	PROJECT MANAGER
RDWP Area: Site Closure Activities				
WA009	Site Restoration	10/01/00	05/18/01	Ken Warbritton
WA010	Borrow Area/Haul Road Restoration	11/26/00	07/17/01	Ken Warbritton
WX720	Remove TSA and Sludge Processing Facility	03/17/00	10/18/00	TBD

To ensure the adequacy and effectiveness of the WSSRAP Quality Program, the requirements and guidance of DOE Order 5700.6, *Quality Assurance*, are incorporated. The program also utilizes the basic and supplemental requirements of the American Society of Mechanical Engineers (ASME) NQA-1, *Nuclear Quality Assurance*, for additional interpretive guidance. When environmental compliance or environmental data acquisition activities are undertaken, the EPA QA/R-5 guidance is followed.

Bid package specifications require each subcontractor to prepare a *Quality Assurance/Quality Control* (QA/QC) *Program Plan* for each major work package. Key components of the program include documented controls, processes, tools, skills, and monitoring equipment that will be used to attain and verify required quality. The program complies with the guidelines contained in the WSSRAP QA/QC program.

During implementation of the work packages, the PMC acts in an oversight role to ensure that the subcontractor is complying with the quality assurance program. Hands-on QA/QC surveillance and documentation of the project is conducted randomly. A PMC representative will be present daily to provide quality oversight.

4.3.2 Health and Safety Plan

The PMC has prepared a Super Health and Safety Plan (HASP) to provide a written assessment of the potential safety and health hazards associated with activities at the Weldon

Spring site. The HASP specifies the minimum acceptable control measures to be used and other health and safety procedures to be followed during performance of work. Those sections of the HASP that are applicable to each work package subcontractor and lower-tier subcontractor personnel are identified on a HASP checklist included in the bid package.

For each discrete activity, the HASP calls for the subcontractor to develop and comply with a Safe Work Plan incorporating applicable provisions of the HASP. Safe Work Plans may be job-specific or general. Job-specific Safe Work Plans shall be used for nonroutine activities or for activities in areas with changing hazardous conditions. Job-specific Safe Work Plans expire at the conclusion of the activity. General Safe Work Plans may be used for routine or repetitive activities, provided the hazardous conditions are well-characterized and stable. General Safe Work Plans may remain in effect for up to one year.

The HASP also calls for all subcontractor personnel to review daily the appropriate sections of the Safe Work Plan relative to the specific activity. Each Safe Work Plan must describe the task; have a hazard assessment; and, detail the equipment to be used, the safety equipment to be used, and the preventive measures that will be taken.

The HASP requires the subcontractor to make and document work area safety inspections and take corrective actions, to hold toolbox meetings prior to beginning work each week, and to instruct each employee in the recognition and avoidance of unsafe conditions and the regulation applicable to his or her work environment.

4.3.3 Contingency Plans

Overall strategies for implementing a response to any emergency posing a substantial danger to off-site public health or the environment caused by remedial activities are addressed by the *WSSRAP Emergency Plan*. This plan identifies potential emergency situations and establishes the necessary emergency management, resources, and plans of action to ensure the protection of workers, members of the public, and the environment during the lifetime of the WSSRAP. The plan also describes the WSSRAP Emergency Response Organization, the concept of emergency management operations, on-site response capabilities, and coordination with off-site emergency organizations for potential emergencies.

4.3.4 Facility Safety Management Plan

The *WSSRAP Facility Safety Management Plan* describes the general methodology in performing hazard screening, hazard categorization, and safety analysis activities for site facilities and operations. This plan systematically identifies hazards, hazard control measures and potential accidents with a given facility or activity, to provide that the operation can be conducted in an manner protective of people, property and the environment.

Site safety analysis are generally conducted in parallel with the development of the subcontract documents (i.e., conducted during the design phase). Any design or operational recommendations associated with the safety analysis activities are incorporated into the final work package prior to issuance for procurement. Hazardous and mitigative measures identified in facility safety documentation will be addressed in the operating procedures for each facility.

Hazard categorization documents will be developed for all major WSSRAP facilities. These documents will include documentation of the radionuclide and hazardous chemicals inventory for the facility, as well as include potential release pathways and a qualitative assessment of the consequences of the potential releases.

4.3.5 Community Relations Plan

The *Community Relations Plan* developed for the Weldon Spring site provides a vehicle for public participation in the decision making process for remedial actions related to site activities. Community Relations activities support the preparation of the Chemical Plant Area Record of Decision (ROD) by providing press releases, publishing public notices regarding the availability of the ROD along with an explanation of remedial actions, and scheduling public meetings. Through public meetings on the Chemical Plant Remedial Investigation/Feasibility Study (RI/FS) and the ROD, the community had the opportunity to provide input into the decision making process through discussions on such issues as health concerns, remedial action construction plans, project cost, and specific site activities.

4.3.6 Waste Management Plan

The *Waste Management Plan* was developed to establish and implement an ongoing site wide waste management program. The plan encompasses all waste related activities including characterization, treatment, storage, minimization, transportation, packaging, and disposal. General, interim waste storage requirements, and monitoring activities are described, approved waste storage areas are identified, as well as the types of waste allowed in these areas, and waste management practices prior to treatment and disposal.

On a work package-specific level, the *Waste Management Plan* serves as the guiding document for the development of Operations Plans for specific activities. Examples of Operations Plans currently developed to support work package activities include the Ash Pond Operations Plan, the MSA Operations Plan; and the Chipped Wood Material Staging Area Plan. An Operations Plan is expected to be developed to guide management of materials storage at the Construction Materials Storage Area.

4.3.7 Project Closeout Report

At the completion of each construction-related remedial activity, the PMC will perform a punch-list inspection to ensure that all work is performed according to all subcontract requirements and testing procedures. Affected WSSRAP departments within the PMC will sign off on activities and deliverables associated with the departments area of responsibility to indicate that they have been accomplished successfully. A construction completion final report will be prepared and submitted to the EPA in accordance with the *Guideline on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties*.

4.3.8 Environmental Monitoring Plan

The purpose of the Environmental Monitoring Plan is to detail the environmental monitoring requirements at the Weldon Spring site. Environmental monitoring is performed at this site to document and quantify potential exposure, to protect public health and safety and the environment, and to demonstrate compliance with applicable legal and regulatory requirements. The monitoring program also verifies adherence to the DOE's environmental protection policies, and supports remedial planning.

The plan explains the rationale and design criteria for the monitoring program; designates the extent and frequency of monitoring and measurements; outlines procedures for laboratory analyses, quality assurance requirements, and program implementation procedures; and preparation and disposition of related reports.

The plan describes the effluent monitoring and environmental surveillance activities that will be performed at the Weldon Spring site. These activities include monitoring of surface water, groundwater, radon, gamma exposure, air particulates, biological, and meteorological conditions. The plan also describes applicable monitoring requirements, analytical methods used, and quality assurance measures. Details and rationale regarding sampling frequencies and analytic parameters are provided. Also presented are summaries of additional programs implemented to satisfy the requirements of Department of Energy Order 5400.1, Order 5400.5, and the *Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance* (Ref. 11). An evaluation of compliance or noncompliance with each regulatory guide criteria statement is included in the plan. Where criteria statements are applicable to WSSRAP, recognition of satisfying the criteria is included.

The WSSRAP Environmental Protection Program is separated into two distinct functions: (1) effluent monitoring, and (2) environmental surveillance. Effluent monitoring assesses the quantities of substances in migration pathways from the site at its perimeter, or in pathways subject to compliance with applicable regulations (e.g., National Emissions Standards for Hazardous Air Pollutants [NESHAPs]) or permit levels and requirements (e.g., the National Pollution Discharge Elimination System [NPDES]). The environmental surveillance program generally reviews environmental media within or outside the site boundary for the presence and concentration of site contaminants to detect and/or track the migration of those contaminants. Surveillance data are used to assess the presence and magnitude of any radiological or toxicological exposures to members of the public, or assess the effects, if any, on the local environment.

4.3.9 Operating Procedures

Operating procedures have been developed for routine activities associated with conducting work at the Weldon Spring site. These procedures have been developed from EPA, DOE guidance, and standard industry practice. Procedures are prepared, reviewed, and

approved by cognizant department managers, the Project Quality Manager, and Project Management. Controlled copies of procedures are maintained in accordance with the document control requirement of DOE Order 5700.6C, *Quality Assurance*. Procedures are reviewed at least annually and revised as appropriate.

The primary operating procedures related to implementing remedial action activities will involve the Engineering, Construction Management and Operations, Procurement, and Project Quality departments. Operating procedures for each of these departments will guide actions such as preparation of specifications, cost estimates, and work package planners, compilation of daily construction reports, operational readiness reviews, construction meetings, subcontract administration, and price/cost analysis and purchase requisitions. Operating procedures also cover QA/QC surveillance, inspection, testing, and the preparation of QA records.

4.3.10 Site Treatment Plan

While the *Site Treatment Plan* (STP) is not an umbrella document for the site, it is applicable to the chemical plant area remediation as the RDWP for the mixed wastes stored on site. The STP is referenced here to present the purpose and scope of the document. The plan presents the currently preferred options for treating the mixed wastes or for developing treatment technologies where technologies do not exist or need modification. The STP is compromised of two volumes: Volume 1, *Compliance Plan*, proposes the preferred options and presents overall schedules for implementing these options. Volume 2, *Background*, provides a detailed discussion of the options and contains information on waste streams and treatability groups addressed by a particular option.

5 REFERENCES

1. U.S. Department of Energy. *Record of Decision for Remedial Action at the Chemical Plant Area of the Weldon Spring Site*. DOE/OR/21548-376. Oak Ridge Field Office. St. Charles, MO. September 1993.

2. MK-Ferguson Company and Jacobs Engineering Group. *Conceptual Design Report for Remedial Action at the Chemical Plant Area of the Weldon Spring Site, Volume I*, Rev. 0. DOE/OR/21548-411. Prepared for the U.S. Department of Energy, Oak Ridge Field Office. St. Charles, MO. January 1994.

3. U.S. Department of Energy. *Feasibility Study for Remedial Action at the Chemical Plant Area of the Weldon Spring Site*, 2 Vols. DOE/OR/21548-148. Oak Ridge Field Office, Weldon Spring Site Remedial Action Project. St. Charles, MO. November 1992.

4. U.S. Department of Energy. *Proposed Plan for Remedial Action at the Chemical Plant Area of the Weldon Spring Site*. DOE/OR/21548-160. November 1992.

5. MK-Ferguson Company and Jacobs Engineering Group. *Scoping Document for the Preparation of the Site Operable Unit Conceptual Design Report*, Rev. 1. DOE/OR/21548-307. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. August 1992.

6. MK-Ferguson Company and Jacobs Engineering Group. *Emergency Plan*, Rev. 0. DOE/OR/21548-531. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office, St. Charles, MO. September 1991.

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8. MK-Ferguson Company and Jacobs Engineering Group. *Community Relations Plan*, Rev. 7. DOE/OR/21548-009. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. February 1994.

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11. U.S. Department of Energy. *Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance*. DOE/EH-1073T, Washington, DC. January 1991.

12. MK-Ferguson Company and Jacobs Engineering Group. *Draft Site Treatment Plan for the Weldon Spring Site - Volume I: Compliance Plan: Volume II - Background Volume: and Appendix A - Alternatives Evaluations*, Rev. 0. DOE/OR/21548-473. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. August 1994.

13. MK-Ferguson Company and Jacobs Engineering Group. *Design Criteria for Missouri State Highway 94 and Weldon Spring Chemical Plant Site Entrance Improvements*, Rev. 0. DOE/OR/21548-238. Prepared for the U.S. Department of Energy, Oak Ridge Operations Office. St. Charles, MO. September 1991.

DOE ORDERS

5700.6c, *Quality Assurance*.
5400.1, *General Environmental Protection Program*
5400.5, *Radiation Protection of the Public and the Environment*
NQA-1, *Nuclear Quality Assurance*
EPA QA/R-5, *EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations*

PROCEDURES

ED-7, *Evaluation of Post-ROD Changes*

6 ACRONYMS

CDR	*Conceptual Design Report*
CERCLA	*Comprehensive Environmental Response, Compensation and Liability Act*
CSS	chemical stabilization/solidification
DOE	U.S. Department of Energy
ESD	Explanation of Significant Difference
EPA	U.S. Environmental Protection Agency
FFA	Federal Facility Agreement
HASP	Health and Safety Plan
OU	operable unit
PMC	Project Management Contractor
QA	quality assurance
QC	quality control
RAWP	*Remedial Action Work Plan*
RCRA	*Resource Conservation and Recovery Act*
RDWP	Remedial Design Work Plan
ROD	Record of Decision
WSSRAP	Weldon Spring Site Remedial Action Project

APPENDIX A
Sample Work Package Planner

MORRISON KNUDSEN CORPORATION
MK-FERGUSON GROUP

Work Package Planner

Form Eng-11.1
Rev. 2, 3/93

Rev.#: 0

Date: 04/15/94

WP#	Work Package Title	Environmental Documentation
445	Borrow Area Haul Road Phase II	Site R.O.D. (August 1993) CX 403.44, CX A9

ROM Estimate: $2,200,000.00	Estimated Duration: 211 days	Scheduled Start/Completion Dates
Quality Level: ___1 ___2 X 3		Jan. 1995 - Aug. 1995

Scope of Work:
Design and construct overpass structure, approaches, and haulage roadway between WSSRAP Borrow Area and CMSA, as shown on Attachment #1.

4/26

Comments:
This WPP is preceded by WP389 WPP, Rev. B, dated March 30, 1994, and supersedes WP389 WPP, Rev. A, attached, dated Nov. 20, 1992.

See notes on Mar 28, 1994 IOC and Mar 29 contingency analysis for reprogramming

Approvals WBS: 733 PAC: MW

Originator: David Dobbyn	Date: 4/15/94	Proj. Control Mgr.: for TORA 4/15/94	Date: 4/15/94
Originating Mgr.: Roger R. Wentzel	Date: 4/15/94	Procurement Mgr.:	Date: 4/25/94
DOE Project Manager/Project Engineer:	Date: 940426	Deputy-Project Director:	Date: 4.26.94
Engineering Mgr.:	Date: 4-18-94	Project Director: James R. Rowen	Date: 4/26/94
Compliance Mgr.: David S. Hix	Date: 4-22-94		

Informational Copies

( ) ES&H ( ) CM&O ( ) Safety ( ) QA/QC ( )_____ ( )_____

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APPENDIX B
Work Package Documentation Form

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number:

Scope:

Start Date: Finish Date:

Project Manager/Remedial Action Team:

Which remedial activity required in the ROD does this work package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-Term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or whether development is required. Add comments as appropriate to explain why a document is not applicable or to give expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist			
Cleanup Attainment Confirmation Plan			
Operations and Maintenance Plan(s)			
Sampling/Characterization Plan(s)			
Other (List Below)			

APPENDIX C

Work Package Documentation Forms for Active Work Packages

Work Package Documentation Form

Identification of supplemental documentation to
Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 447, Interim Stabilization of Raffinate Pit 4 Berm

Scope:
Interim stabilization of the portion of raffinate pit 4 berm damaged by a slump in the outer slope near the northwest corner of the pond. Work includes excavation of the top four feet of the berm and a portion of the unstable, weak material involved in the slump; use of the excavated material along with the on-site borrow to form a dozer compacted toe berm; and seeding of disturbed areas.

Start Date: 9/94 Finish Date: 12/94

Project Manager/Remedial Action Team: Sheryl Hodges/Raffinate Pits Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT-DOCUMENT CONTROL SUBCONTRACT 3589-SC-WP447	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 397, Raffinate Pits Characterization

Scope:

Raffinate Pits characterization involves:
1) Ground surface, bathymetric and geophysical surveys to determine the location and quantity of exposed and submerged raffinate sludges.
2) Land, bathymetric, and geophysical surveys to determine the location and quantity of exposed, submerged and buried debris, in and adjacent to the raffinate pits.
3) Reduce the raw data, interpret the results and prepare a final report.

Start Date: 12/94 Finish Date: 5/95

Project Manager/Remedial Action Team: Sheryl Hodges/Raffinate Pits Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT-DOCUMENT CONTROL SUBCONTRACT 3589-SC-WP397	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 399, CP Drainage Control Facilities

Scope:

Construction of two drainage control structures designed to meet acceptable sediment levels for off-site discharge and the Ash Pond Isolation Dike. This also includes facilities necessary to segregate runoff from contaminated and noncontaminated areas.

Start Date: 3/95 Finish Date: 5/96

Project Manager/Remedial Action Team: Gary Beyer/Waste Handling Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT - DOCUMENT CONTROL. SUBCONTRACT-3589-SC-WP399	
Cleanup Attainment Confirmation Plan	YES	UNDER DEVELOPMENT	
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	YES	UNDER DEVELOPMENT	
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 443, Ash Pond Isolation Dike Modification

Scope:

Surface water drainage will be modified to divert water flow around the chipped wood storage area (CWSA). This will prevent CWSA leachate from flowing offsite.

Start Date: 3/95 Finish Date: 5/95

Project Manager/Remedial Action Team: Gary Beyer/Waste Handling Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT-DOCUMENT CONTROL	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 388, Borrow Area Development

Scope:

Fence; construction safety warning signs; site entrance; gate; clear vegetation; construct temporary roads; lay out area of stockpiles; material staging; utility connections; and construction of sediment control structures.

Start Date: 3/95 Finish Date: 11/95

Project Manager/Remedial Action Team: Ken Warbritton/Cell Support Team

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT-DOCUMENT CONTROL SUBCONTRACT-3589-SC-WP388	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 436, Water Treatment Plants Operator Services

Scope:

Provide operators to staff the quarry water treatment plant, site water treatment plant-train 1, site water treatment plant-train 2, mobile water treatment plant, CSS pilot facility, and maintenance services at the waste water treatment plant. This package replaces WP-283 and WP-318.

Start Date: 1/95 Finish Date: 11/97

Project Manager/Remedial Action Team: Scott Anderson/Waste Water treatment Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
__X__Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	Work Package File	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	YES	CSS Pilot Testing Facility Operations and Maintenance Manual, November 1994	
Sampling/Characterization Plan(s)	YES	CSS Pilot Scale Test Facility Test Plan, July 1994	
Other (List Below)			
Safety Assessment	YES	Final Safety Assessment for the CSS Pilot Scale Testing Facility, September 1994	
Facility Operation Plan	YES	CSS Pilot Scale Test Facility Operation Plan, August 1994	

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 448, Treatment Plants - Mechanical and Electrical Maintenance

Scope:

Approved scope of work includes providing mechanical and electrical maintenance services on an as-needed basis for the five water treatment plants and the CSS pilot facility.

Start Date: 1/95 Finish Date: 2/98

Project Manager/Remedial Action Team: Scott Anderson/Waste Water Treatment Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	Work Package File	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	YES	CSS Pilot Testing Facility Operations and Maintenance Manual, November 1994	
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP 370, Water Treatment System, Instrument Calibration, Service and Maintenance

Scope:

Provide instrument calibrations at the quarry water treatment plant, site water treatment plant, mobile water treatment plant, waste water treatment plant and CSS pilot facility.

Start Date: 9/93 Finish Date: 9/96

Project Manager/Remedial Action Team: Scott Anderson/Waste Water Treatment Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
___X___Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	Work Package File	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	YES	CSS Pilot Testing Facility Operations and Maintenance Manual, November 1994	
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to
Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-461, Vicinity Property - MDOC No. 9 Remediation

Scope:

Removal and transport of contaminated soils to the chemical plant area for placement in disposal facility.

Start Date: Finish Date:

Project Manager/Remedial Action Team: Gene Valett/Quarry Bulk Waste Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-253, Construction Material Staging Area

Scope: Prepare northern portion of chemical plant site as staging area for materials brought from the borrow area and other off-site suppliers for use in the construction of the disposal cell.

Start Date: August 23, 1995 Finish Date: May 18, 1996

Project Manager/Remedial Action Team: Ken Warbritton / Facilities

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	Bid Document - Document Control	
Cleanup Attainment Confirmation Plan	YES	Confirmation Plan and Work Package Performance Specifications - Document Control	
Operations and Maintenance Plan(s)	NO		Handled by Disposal Cell Operations and Maintenance Plan
Sampling/Characterization Plan(s)	YES		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-388, Borrow Area Development

Scope: Prepare soil borrow area for the excavation and hauling of soil material to the chemical plant area. Prepare sedimentation basins, stockpiling areas, entrances, operational areas. Excavate soils and haul materials to chemical plant area.

Start Date: July 12, 1995 Finish Date: February 13, 1996

Project Manager/Remedial Action Team: Ken Warbritton; Facilities Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	Bid Document - Document Control	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		Handled by the Disposal Cell Operations and Maintenance Plan
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-389, Borrow Area Haul Road

Scope: Construct a haul road from the Borrow Area located within the Weldon Spring Conservation Area to the chemical plant area to be used for hauling uncontaminated clay and soil material from the borrow area.

Start Date: August 23, 1995 Finish Date: May 18, 1996

Project Manager/Remedial Action Team: Ken Warbritton; Facilities Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___ General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	Bid Document - Document Control	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		Handled by the Disposal Cell Operations and Maintenance Plan
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-456, Highway 94 Realignment

Scope: Engineering design of the underpass at Highway 94 and realign highway in support of the transportation of borrow material from the borrow area to the chemical plant area.

Start Date: December 18, 1995 Finish Date: August 30, 1996

Project Manager/Remedial Action Team: Ken Warbritton; Facilities Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	NO		This work package is a engineering design package only. All construction work will be conducted by the Missouri Highway and Transportation Department.
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-457, Army Vicinity Properties 4 and 5 Remediation

Scope: Perform excavation of soils at vicinity properties 4 and 5 located on the Department of the Army's training area. Transport soils to chemical plant area and restore area to grade.

Start Date: not forecasted Finish Date:

Project Manager/Remedial Action Team: Ken Warbritton; Facilities Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

__X__ General Site Activities (Waste Removal and Handling)
_____ Disposal Cell Activities
_____ Treatment and Processing
_____ Site Closure
_____ Long-term Monitoring
_____ Support Facilities
_____ Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES		To be developed.
Cleanup Attainment Confirmation Plan	YES	Performance Requirement - Document Control.	
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	YES		To be developed.
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-458, Army (DA) Vicinity Properties 1,2, and 3 and Missouri Department of Conservation (MDC) Vicinity Properties 3, 4, and 5 Remediation.

Scope: Perform excavation of soils at vicinity properties DA 1,2,3 and MDC 3,4,5 and transport soils to chemical plant area. Restore area to grade.

Start Date: not forecasted Finish Date:

Project Manager/Remedial Action Team: Ken Warbritton; Facilities Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES		To be developed.
Cleanup Attainment Confirmation Plan	YES	Performance Requirement - Document Control.	
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	YES		To be developed.
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP375M, ASH POND WATER IMPROVEMENTS

Scope:

Installation of a water control gate in the existing Ash Pond outlet structure to enhance water discharge regulation from the Ash Pond.

Start Date: 08/95 Finish Date: 12/95

Project Manager/Remedial Action Team: Gary Beyer / Waste Placement

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT - DOCUMENT CONTROL, SUBCONTRACT 3589-SC-WP375	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to
Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP357, GENERAL WOOD CONSOLIDATION AND CHIPPING

Scope:

Chipping of waste wood materials including trees, root balls, railroad ties, utility poles, and miscellaneous wood debris located within the chipped wood storage area north of Raffinate Pit 3.

Start Date: 08/95 Finish Date: 11/95

Project Manager/Remedial Action Team: Gary Beyer / Waste Placement

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___ General Site Activities (Waste Removal and Handling)
_____ Disposal Cell Activities
_____ Treatment and Processing
_____ Site Closure
_____ Long-term Monitoring
_____ Support Facilities
_____ Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT - DOCUMENT CONTROL, SUBCONTRACT 3589-SC-WP357	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP420, FOUNDATIONS AND CONTAMINATED SOIL REMOVAL

Scope: Removal and interim storage of Chemical Plant building foundations, underground utilities, and chemically and radiologically contaminated soils within the area required for construction of Phase I of the disposal cell. Also includes removal of unsuitable soils from within the disposal cell footprint and backfill with soils meeting the structural and permeability requirements for the disposal cell foundation.

Start Date: 10/95 Finish Date: 08/97

Project Manager/Remedial Action Team: Gary Beyer / Waste Placement

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

___X___General Site Activities (Waste Removal and Handling)
___X___Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	BID DOCUMENT - DOCUMENT CONTROL, SUBCONTRACT 3589-SC-WP420	
Cleanup Attainment Confirmation Plan	YES	DOCUMENT CONTROL, DOE/OR/21548-491	
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	YES	UNDER DEVELOPMENT	
Other (List Below)			
REMEDIAL ACTION INSPECTION AND TEST PLAN FOR FOUNDATIONS AND CONTAMINATED SOILS REMOVAL WP-420	YES	DOCUMENT CONTROL, DOE/OR/21548-552	DESCRIBES METHODS BY WHICH CONSTRUCTION ACTIVITIES WILL BE TESTED AND INSPECTED TO VERIFY COMPLIANCE WITH SPECIFICATION REQUIREMENTS.

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP449, CSS Test Pads and Related Tests

Scope: construction of tests pads for CCS grout, contaminated soils and metal entombment, CSS grout and metal entombment, along with water collection systems for each pad to provide design data for incorporation into the waste placement requirements for the disposal cell. Water collection systems will provide additional data on potential disposal cell leachate composition.

Start Date: 07/07/95 Finish Date: 11/16/95

Project Manager/Remedial Action Team: M. Wesley/Disposal Cell Team

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
___X___Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist			
Cleanup Attainment Confirmation Plan			
Operations and Maintenance Plan(s)			
Sampling/Characterization Plan(s)			
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP437, Disposal Cell Construction

Scope: Construction of an engineered disposal cell with a capacity of maximum 1,500,000 yd^3 , in an area of the chemical plant covering approximately 70 acres. Work includes completion of cell foundation, construction of perimeter encapsulation dikes, double liner/leachate collection system, placement of waste materials, construction of multilayered final cover and permanent drainage features.

Start Date: 03/17/97 Finish Date: 02/28/2002

Project Manager/Remedial Action Team: M. Wesley/Disposal Cell Team

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
__X___Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist			
Cleanup Attainment Confirmation Plan			
Operations and Maintenance Plan(s)	YES	Disposal Facility Operations Plan, March 1995/ Document Control	
Sampling/Characterization Plan(s)			
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-411

Scope: Construction of a CSS (Chemical Stabilization and Solidification) Plant to treat raffinate sludge by adding a cementitious binder to dewatered sludge.

Start Date: 3/97 Finish Date: 6/98

Project Manager/Remedial Action Team: Scott Anderson/Waste Treatment Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
__X____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
__X____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	TO BE DEVELOPED	
Cleanup Attainment Confirmation Plan	NO		WP-420 COMPLETED WORK ZONES 2&3
Operations and Maintenance Plan(s)	NO		NO O&M REQUIRED-SEE WP-460
Sampling/Characterization Plan(s)	NO		SEE WP-460
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-462 CSS Sludge Thickener

Scope: Supply, erect on site, supervise start up and train operators for a thickener to dewater raffinate sludge for a CSS plant.

Start Date: 3/96 Finish Date: 11/98

Project Manager/Remedial Action Team: Scott Anderson/Waste Treatment Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
__X___Treatment and Processing
_____Site Closure
_____Long-term Monitoring
__X___Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	TO BE DEVELOPED	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		NO O&M REQUIRED - SEE WP-460
Sampling/Characterization Plan(s)	NO		SEE WP-460
Other (List Below)			

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-460 CSS O&M Services

Scope: Operate and maintain the CSS Plant

Start Dates:		Finish Dates:
Training - 9/98	3/99	
Operate - 3/99	11/99	

Project Manager/Remedial Action Team: Scott Anderson/Waste Treatment Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
__X___Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
_____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	TO BE DEVELOPED	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	YES	TO BE DEVELOPED	
Sampling/Characterization Plan(s)	YES	TO BE DEVELOPED IN OPERATIONS PLAN	
Other (List Below)			
Safety Assessment	YES	HAZARD CATEGORIZATION FOR THE CSS FACILITY	DRAFTED TO DOE
Facility Operations Plan	YES	TO BE DEVELOPED	

Work Package Documentation Form

Identification of supplemental documentation to Chemical Plant Area OU Remedial Action Work Plan.

Work Package Number: WP-430 Liner Repair and Maintenance

Scope: HDPR liner inspections, leak/damage assessment, liner repair and testing for TSA, QWTP and SWTP.

Start Date: 8/94 Finish Date: When facilities are no longer in operation

Project Manager/Remedial Action Team: Scott Anderson/Waste Treatment Group

Which remedial activity required in the ROD does this Work Package support? (Refer to Section 3.1 in the RAWP)

_____General Site Activities (Waste Removal and Handling)
_____Disposal Cell Activities
_____Treatment and Processing
_____Site Closure
_____Long-term Monitoring
_____Support Facilities
__X____Does not support any ROD categories

Check each document that is applicable for the work package. For each document, note location or if development is required. Add comments as appropriate to explain why a document is not applicable or expected development date.

DOCUMENT	APPLICABILITY (YES/NO)	PHYSICAL LOCATION OR DOCUMENT NAME	COMMENTS
HASP Checklist	YES	TO BE DEVELOPED	
Cleanup Attainment Confirmation Plan	NO		
Operations and Maintenance Plan(s)	NO		
Sampling/Characterization Plan(s)	NO		
Other (List Below)			
Leachate Production Action Response Plan	YES	DOCUMENT CONTROL	

APPENDIX D
Classification of Post-ROD Changes at the Weldon Spring Site

CLASSIFICATION OF POST-ROD CHANGES AT THE WELDON SPRING SITE

☐ Mr. Daniel Wall Remedial Project Manager U.S. EPA, Region VII 726 Minnesota Ave. Kansas City, KS 66101 Phone (913) 551-7710 FAX (913) 551-7063	☐ Mr. Larry Erickson Division of Environmental Quality Missouri Department of Natural Resources P.O. Box 176 Jefferson City, MO 65102 Phone (314) 751-3907 FAX (314) 751-7869	☐ Karen Reed DOE ☐ MDNR Compliance Advisors (On-Site) ☐ Project Manager _____ ☐ _____

Date: _____

Work Package/Activity: _____

Type of Change: (Check One)

_____ Fundamental Change to ROD
_____ Significant Change to ROD
_____ Non-Significant Change to ROD
_____ Variance to Work Plan and or Work Control Documents

Date Commission Notified_____
Date Public Notified_____

DOCUMENTATION REVIEWED: _____

DESCRIPTION OF ACTIVITY: _____

DESCRIPTION OF CHANGE: _____

JUSTIFICATION FOR CHANGE: _____

_____ _____
ORIGINATOR DATE

_____ _____
DOE PROJECT ENGINEER DATE

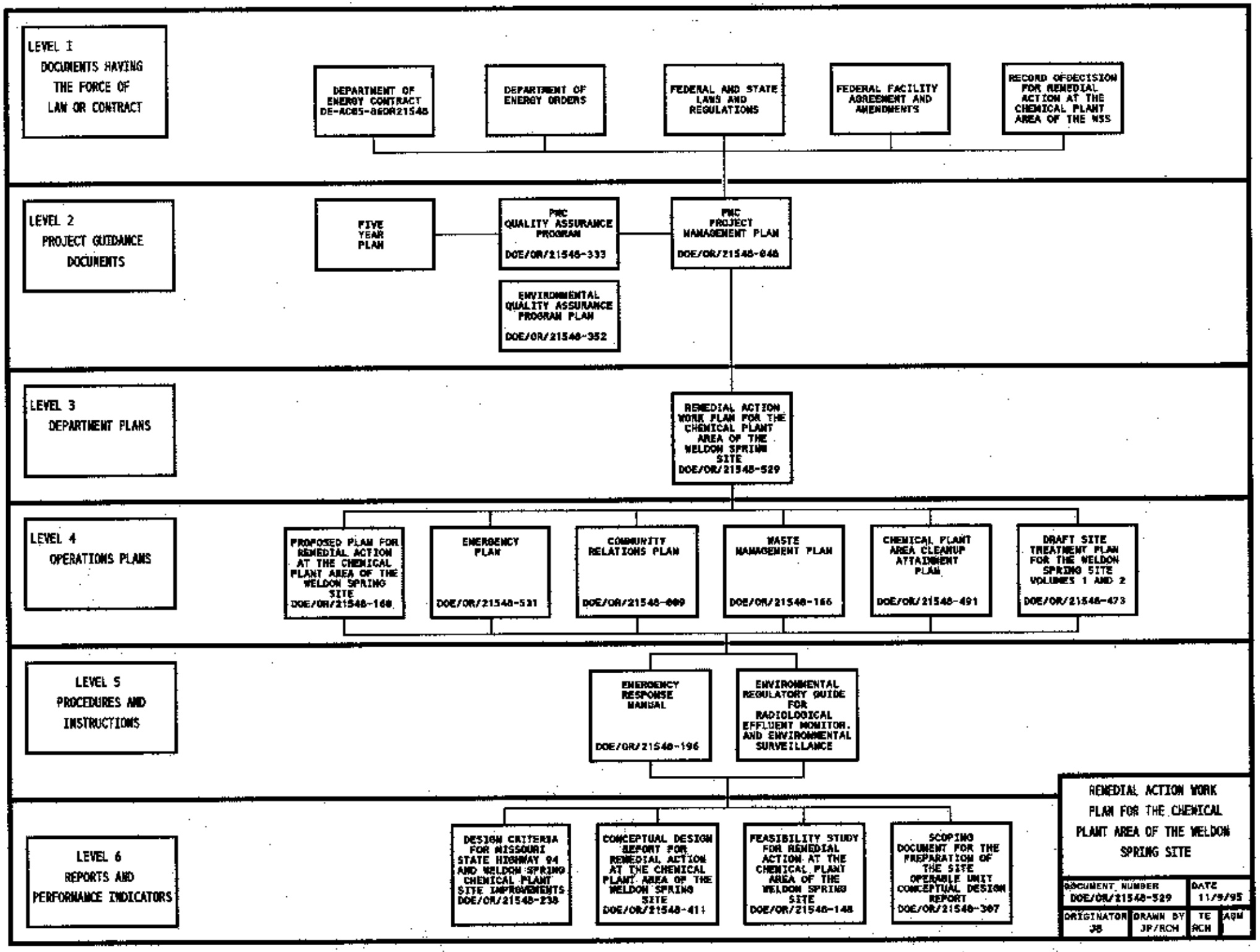
_____ _____
PMC PROJECT MANAGER DATE

_____ _____
DOE DEPUTY PROJECT MANAGER DATE

_____ _____
PMC PROJECT/DEPUTY DIRECTOR DATE

cc: Administrative Record Coordinator
RC-22-12-07
FFA Coordinator

APPENDIX E
Document Hierarchy


LEVEL 1
DOCUMENTS HAVING THE FORCE OF LAW OR CONTRACT
DEPARTMENT OF ENERGY CONTRACT DE-AC05-86OR21548
DEPARTMENT OF ENERGY ORDERS
FEDERAL AND STATE LAWS AND REGULATIONS
FEDERAL FACILITY AGREEMENT AND AMENDMENTS
RECORD OFDECISION FOR REMEDIAL ACTION AT THE CHEMICAL PLANT AREA OF THE WSS
LEVEL 2
PROJECT GUIDANCE DOCUMENTS
FIVE YEAR PLAN
PMC QUALITY ASSURANCE PROGRAM
DOE/OR/21548-333
PMC PROJECT MANAGEMENT PLAN
DOE/OR/21548-048
ENVIRONMENTAL QUALITY ASSURANCE PROGRAM PLAN
DOE/OR/21548-352
LEVEL 3
DEPARTMENT PLANS
REMEDIAL ACTION WORK PLAN FOR THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE
DOE/OR/21548-529
LEVEL 4
OPERATIONS PLANS
PROPOSED PLAN FOR REMEDIAL ACTION AT THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE
DOE/OR/21548-168
EMERGENCY PLAN
DOE/OR/21548-531
COMMUNITY RELATIONS PLAN
DOE/OR/21548-009
WASTE MANAGEMENT PLAN
DOE/OR/21548-166
CHEMICAL PLANT AREA CLEANUP ATTAINMENT PLAN
DOE/OR/21548-491
DRAFT SITE TREATMENT PLAN FOR THE WELDON SPRING SITE VOLUMES 1 AND 2
DOE/OR/21548-473
LEVEL 5
PROCEDURES AND INSTRUCTIONS
EMERGENCY RESPONSE MANUAL
DOE/OR/21548-196
ENVIRONMENTAL REGULATORY GUIDE FOR RADIOLOGICAL EFFLUENT MONITOR. AND ENVIRONMENTAL SURVEILLANCE
LEVEL 6
REPORTS AND PERFORMANCE INDICATORS
DESIGN CRITERIA FOR MISSOURI STATE HIGHWAY 94 AND WELDON SPRING CHEMICAL PLANT SITE IMPROVEMENTS
DOE/OR/21548-238
CONCEPTUAL DESIGN REPORT FOR REMEDIAL ACTION AT THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE
DOE/OR/21548-411
FEASIBILITY STUDY FOR REMEDIAL ACTION AT THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE
DOE/OR/21548-148
SCOPING DOCUMENT FOR THE PREPARATION OF THE SITE OPERABLE UNIT CONCEPTUAL DESIGN REPORT
DOE/OR/21548-307
REMEDIAL ACTION WORK PLAN FOR THE CHEMICAL PLANT AREA OF THE WELDON SPRING SITE
DOCUMENT NUMBER DOE/OR/21548-529
DATE 11/9/95
ORIGINATOR JB
DRAWN BY JP/RCH
TE RCH
ASM

57536

57537

MK-Ferguson Company
Weldon Spring Site Remedial Action Project

TRANSMITTAL OF CONTRACT DELIVERABLE

Date: 11/9/95 Transmittal No.: CD-0087-00

Title of Document: Remedial Action Work Plan for the Chemical Plant Area of the Weldon Spring Site

Doc. Num.: 529 Rev. No.: 0 Date of Document: November 1995

Purpose of Transmittal: Request for Department of Energy acceptance of contract deliverable.

The Project Management Contractor has reviewed and approved the attached document and hereby delivers it to the U.S. Department of Energy, Weldon Spring Site Office.

The document will be considered accepted unless we receive written notification to the contrary within 30 days of the date of this transmittal.

James R. Powers
Project Director

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