

**U. S. DEPARTMENT OF ENERGY
 WORK BREAKDOWN STRUCTURE DICTIONARY
 PART II - ELEMENT DEFINITION**

1. PROJECT TITLE/PARTICIPANT Environmental Management/Bechtel Jacobs Company LLC		2. DATE 10/01/02	3. IDENTIFICATION NUMBER DE-AC05-98OR22700
4. WBS ELEMENT CODE 1.12.04.01.01.20		5. WBS ELEMENT TITLE PAD Surface Water Removal Action – Off-Site Ditches	
6. INDEX LINE NO. N/A	7. REVISION NO. AND AUTHORIZATION Rev 1		8. DATE 01/23/03
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION N/A		11. BUDGET AND REPORTING NUMBER N/A	

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12. ELEMENT TASK DESCRIPTION WBS GRAPHIC See attached. INTRODUCTION The objective of this subproject is to perform a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) removal action on the Bayou and Little Bayou Creeks and outfall ditches that feed into them. This removal action would first identify contamination that poses an imminent threat to human health and the environment (hotspots) and then conduct targeted excavation and site restoration to eliminate that threat. LOGIC RELATIONSHIPS This removal action would take place following the installation of sediment control basins at outfalls 001, 008 and 011, to minimize the possibility of recontamination. SCOPE DESCRIPTION Release Sites and Facilities Assessments to be completed Actions to be completed <table border="0" data-bbox="203 1113 1039 1753"> <thead> <tr> <th><u>Raims No.</u></th> <th><u>SWMU No.</u></th> <th><u>Description</u></th> <th><u>IDMS CODE</u></th> </tr> </thead> <tbody> <tr><td>2038</td><td>60</td><td>C-375-E2 Effluent Ditch (KPDES 002)</td><td>147</td></tr> <tr><td>1996</td><td>63</td><td>C-375-W7 Oil Skimmer Ditch (KPDES 008)</td><td>150</td></tr> <tr><td>2043</td><td>64</td><td>Little Bayou Creek</td><td>8</td></tr> <tr><td>1993</td><td>65</td><td>Big Bayou Creek</td><td>9</td></tr> <tr><td>2040</td><td>66</td><td>C-375-E3 Effluent Ditch (KPDES 010)</td><td>151</td></tr> <tr><td>2041</td><td>67</td><td>C-375-E4 Effluent Ditch (C-340 Ditch)</td><td>152</td></tr> <tr><td>1997</td><td>68</td><td>C-375-W8 Effluent Ditch (KPDES 015)</td><td>153</td></tr> <tr><td>1998</td><td>69</td><td>C-375-W9 Effluent Ditch (KPDES 001)</td><td>154</td></tr> <tr><td>1954</td><td>93</td><td>Concrete Disposal Area East of Plant Security Area</td><td>135</td></tr> <tr><td>1957</td><td>105</td><td>Concrete Rubble Pile (3)</td><td>100</td></tr> <tr><td>1958</td><td>106</td><td>Concrete Rubble Pile (4)</td><td>101</td></tr> <tr><td>1959</td><td>107</td><td>Concrete Rubble Pile (5)</td><td>102</td></tr> <tr><td>1960</td><td>108</td><td>Concrete Rubble Pile (6)</td><td>103</td></tr> <tr><td>1961</td><td>109</td><td>Concrete Rubble Pile (7)</td><td>104</td></tr> <tr><td>1965</td><td>113</td><td>Concrete Rubble Pile (11)</td><td>108</td></tr> <tr><td>1981</td><td>129</td><td>Concrete Rubble Pile (27)</td><td>124</td></tr> <tr><td>1989</td><td>175</td><td>Concrete Rubble Pile (28)</td><td>132</td></tr> <tr><td>1994</td><td>199</td><td>Big Bayou Creek Monitoring Station</td><td>144</td></tr> </tbody> </table> Past Accomplishments None			<u>Raims No.</u>	<u>SWMU No.</u>	<u>Description</u>	<u>IDMS CODE</u>	2038	60	C-375-E2 Effluent Ditch (KPDES 002)	147	1996	63	C-375-W7 Oil Skimmer Ditch (KPDES 008)	150	2043	64	Little Bayou Creek	8	1993	65	Big Bayou Creek	9	2040	66	C-375-E3 Effluent Ditch (KPDES 010)	151	2041	67	C-375-E4 Effluent Ditch (C-340 Ditch)	152	1997	68	C-375-W8 Effluent Ditch (KPDES 015)	153	1998	69	C-375-W9 Effluent Ditch (KPDES 001)	154	1954	93	Concrete Disposal Area East of Plant Security Area	135	1957	105	Concrete Rubble Pile (3)	100	1958	106	Concrete Rubble Pile (4)	101	1959	107	Concrete Rubble Pile (5)	102	1960	108	Concrete Rubble Pile (6)	103	1961	109	Concrete Rubble Pile (7)	104	1965	113	Concrete Rubble Pile (11)	108	1981	129	Concrete Rubble Pile (27)	124	1989	175	Concrete Rubble Pile (28)	132	1994	199	Big Bayou Creek Monitoring Station	144
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<p>Future Accomplishments</p> <ul style="list-style-type: none"> ? Develop and issue a Request for Proposal for a subcontractor to perform a removal action to characterize and perform hotspot removal on the Bayou/Little Bayou Creek systems. ? Conduct characterization of the ditches to refine scope of the removal action. ? Begin development on an Engineering Evaluation/Cost Analysis (EE/CA) D0 and D1. ? Complete D2 EE/CA, Develop an Action Memorandum and Removal Action Work Plan D0, D1 and D2. ? Evaluate proposals and select subcontractor to perform characterization and hotspot removal on the Bayou/Little Bayou Creek systems. ? Following selection of a subcontractor, begin characterization and hotspot removal of contamination in Bayou/Little Bayou Creek systems. ? Develop D0 Post Construction Report. ? Complete characterization and hotspot removal of contamination of off-site ditch/creek systems. ? Develop D1, D2 Post Construction Report. <p>Scope</p> <p>4.1.1.20.1 Technical Management and Integration</p> <p>Technical Management and Integration activities include the technical, subcontract, and project management necessary to ensure that all activities in the WBS elements are completed on schedule, within budget, and without safety or environmental incident. Technical Management and Integration includes the Project Manager, Deputy Project Manager, Lead Engineer, Subcontract Technical Representative, Safety Advocate, Project Controls and other BJC personnel who will perform programmatic activities, project scheduling and estimating. Other Bechtel Jacobs Company/M & I support will be carried under individual WBS elements.</p> <p>The Fiscal Year Baseline/Life Cycle Baseline activities will be performed on an annual basis to determine the scope of work for future work. The future scope of work will be scheduled and estimated based upon regulatory milestones and DOE commitments.</p> <p>Baseline Change Proposals – Prepare BCP documentation to make necessary corrections to the baseline when scope, schedule, or cost changes are determined necessary.</p> <p>Specific activities include:</p> <ul style="list-style-type: none"> - Ensure completion of all activities within the subproject is in compliance with the principals of Integrated Safety Management. - Maintain contact and open communications with the appropriate DOE Project Manager on the subproject activities. - Participate in biweekly technical information and monthly Project Status Review meetings to provide the DOE with project status summaries. - Manage the subcontracts and work authorizations issued to complete the work under the subproject. - Respond and supply information to DOE for Lessons Learned, surveillance and audits, Site-Specific Advisory Board support, and other DOE reporting mechanisms. - Maintain the monthly subproject estimates and estimates at completion. <p>4.1.1.20.2 Characterization</p> <p>Develop a sampling and analysis plan to determine the extent of hotspot contamination in the creek systems, with a focus on radionuclide and PCB contamination. Conduct radiological walkover surveys, with selected points along the creek to be sampled for PCBs, metal and radionuclides. Samples will be analyzed and results will be placed in to the OREIS data system for use.</p>		

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<p>4.1.1.20.3 Decision Documents</p> <p>A draft D0 Engineering Evaluation/Cost Analysis (EE/CA) will be developed and submitted for internal review, then submitted to DOE and the regulatory agencies for review and comment. A final draft D1 will be developed and transmitted to the regulatory agencies for review and approval. A final D2 version of the document will be prepared and submitted for approval. A draft D0 Action Memorandum (AM) will be developed and submitted for internal review, then issued to DOE and the regulators for review and comment. Incorporate DOE and regulator comments and develop a final draft D1 AM for review and approval. A final D2 AM will be developed and submitted to the regulators for approval.</p> <p>4.1.1.20.4 Removal Actions</p> <p>Organize the subcontract formation team, develop and issue a Request for Proposal (RFP) for a subcontractor to characterize, excavate and restore selected areas of the Little Bayou Creek, Bayou Creek and outfall ditches.</p> <p>A Removal Action Design will be developed and submitted to the regulatory agencies for review and approval prior to being included in the RFP.</p> <p>A Removal Action Work Plan (RAWP) will be developed and submitted for review and approval to DOE and the regulatory agencies. To expedite the work, an independent subcontractor will prepare the RAWP, and the subcontractor selected to perform the fieldwork will add the appendices.</p> <p>The subcontract formation team will evaluate proposals received from contractors based on the RFP and select a subcontractor to characterize, excavate and restore selected areas of the Little Bayou Creek, Bayou Creek and outfall ditches. Following award, the subcontractor will mobilize, develop site specific plans, and conduct a readiness review prior to commencing work. Fieldwork will be conducted in accordance with an approved schedule.</p> <p>The subcontractor will begin to prepare a draft version (D0) of a Post Construction Report, documenting actions taken in accordance with the Action Memorandum for the Removal Action.</p> <p>The subcontractor will complete characterization and hotspot removal of contamination in the Bayou/Little Bayou Creek systems and outfall ditches.</p> <p>Following completion of the field activities, the subcontractor will demobilize from the site, and a draft (D1) and final (D2) version of the Removal Action Report will be developed and submitted for review and approval.</p> <p>4.1.1.20.5 Newly Generated Waste</p> <p>Contaminated soils and sediments and associated materials from the creeks and ditches will be generated and containerized, pending waste characterization and disposition.</p> <p>Contaminated soils and sediments and associated materials from the creeks and ditches will be generated and containerized, pending waste characterization and disposition. Once waste characterization determines the location of the disposal facility, the waste streams will be transported there.</p> <p>4.1.1.20.6 DOE Prime</p> <p>Following transport to the disposal facility, contaminated soils and sediments and associated materials will be placed into the receiving facility at established rates.</p>		

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It is the core value of Bechtel Jacobs Company that the safety and health of every worker and the public at large, and our environment, are the most important assets we are entrusted to protect. To accomplish this, an Integrated Safety Management System (ISMS), based on DOE's ISMS has been implemented that incorporates the five core functions and is based on the seven guiding principles. The objective of ISMS is to systematically integrate safety and environmental protection into the planning and execution of all work activities. The term safety encompasses Nuclear Safety, Industrial Safety, Industrial Hygiene, Occupational Health, Health Physics, and environmental issues. ISMS requirements flow-down to Bechtel Jacobs Company subcontractors. The Five Core Functions are: (1) Define the scope of work, (2) Analyze hazards, (3) Develop and implement hazard controls, (4) Perform work within controls, and (5) Provide feedback and continuous improvement. The Seven Guiding Principles are (1) Line Management Responsibility for Safety, (2) Clear Roles and Responsibilities, (3) Competence commensurate with responsibility, (4) Balanced Priorities, (5) Identification of Safety Standards and Requirements, (6) Hazard Control Tailored to Work Being Performed, and (7) Operations Authorization.

In performing the analysis of alternatives against the CERCLA nine criteria, consideration is given to the principles of ISMS. Specifically, in the analysis of "implementability" and "short-term impact", a trade-off assessment is performed to balance the risk to workers compared to the overall benefit of the project. This assessment follows the five core functions of ISMS to assure that the scope of work and the specific steps to carry out the project have been defined in sufficient detail to analyze the associated hazards, the effectiveness of the controls, and the actual risks to the workers.

Before a subproject begins, several activities must be completed that demonstrate that all involved in the project have completed rigorous health and safety reviews and that all potential hazards of doing the work have been identified. The routine activities in RA are conducted in accordance with standard operating procedures, activity hazard analyses, and Integrated Safety Management plans. Non-routine work will require a readiness assessment as necessary to ensure complete health, safety, and environmental reviews prior to work start. This assessment is conducted by people, experienced in similar kinds of work, with the right to examine all aspects of a project about to commence, and require that the project team provide documented evidence that any applicable requirements of the job have been met.

REQUIREMENTS/DRIVERS

Bechtel Jacobs Company LLC Contract DE-AC05-98OR22700, December 18, 1997

Integrated Safety Management System Description, BJC/OR-87, Revision 2

Paducah FFA effective February 13, 1998

SMP for PGDP, FY 2001 Annual Revision, November 2000

Lasagna Operations and Maintenance Plan

"Integrated Safety Management System Description, BJC-GM-1400, Revision 2, October 2001 and Integrated Safety Management System Supplement, BJC-GM-1401, Revision 0, December 2000"

As applicable, indicate other regulatory-related requirements.

CERCLA: Y/N RCRA: Y/N DNFSB: Y/N DOE Orders: Y/N AEA: Y/N UMTRCA: Y/N State: Y/N
Other: Y/N

WASTE VOLUMES

Please see attached waste performance metrics, as applicable.

The waste quantities supporting the method of accomplishment and basis of estimate are consistent with data reported on the Waste Performance Metrics Form.

PROJECT SCHEDULE

Please see attached project summary schedule, project detail schedule, and Milestone Status Summary Report. Schedule Assumptions:

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EXECUTION YEAR BASELINE Please see attached Budgeted Cost of Work Scheduled Plan BASELINE BY YEAR Please see attached Baseline by Year Report.		

