

**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 1.12.04.01.01.10		5. WBS ELEMENT TITLE PAD Soils Remedial Action	
6. INDEX LINE NO. N/A	7. REVISION NO. AND AUTHORIZATION rev 1		8. DATE 1/23/03
9. APPROVED CHANGES N/A			
10. SYSTEM DESIGN DESCRIPTION N/A		11. BUDGET AND REPORTING NUMBER N/A	
12. ELEMENT TASK DESCRIPTION			
<p>WBS GRAPHIC</p> <p style="padding-left: 40px;">See attached.</p> <p>INTRODUCTION</p> <p>The objective of this subproject is to assess the Soils Operable Unit (SOU) at PGDP, and then to conduct cleanup of the contaminated areas. In general, the soil boundary is considered as the ground surface to 10 feet below ground surface and 16 feet below ground surface in the vicinity of several water lines that have invert elevations that deep. Assessments shall be addressed through remedial action documentation such as Remedial Investigation/Feasibility Study (RI/FS) Work Plans and Reports, Baseline Risk Assessment (BRA), Proposed Remedial Action Plan (PRAP), and Record of Decision (ROD). All existing applicable data, including previous Site Evaluations will supplement the data obtained during the RI to determine risk and assist in the selection of the remedial actions to be included within the cleanup of soils.</p> <p>Seventy-three SWMUs and AOCs are included in this project as well as site-wide evaluation of PCBs soils and radiological contaminated soils inside the plant security fence. Remedial Investigation (RI) Work Plan and Report, Feasibility Study (FS) Work Plan and Report, Proposed Remedial Action Plan, and a Record of Decision will be developed. Cleanup is expected to be primarily excavation and disposition of contaminated soils identified during assessments.</p> <p>LOGIC RELATIONSHIPS</p> <p>DOE Material Storage Areas (DMSAs) will be removed before the implementation of the Remedial Action. The Removal Action will precede the Remedial Action.</p> <p>SCOPE DESCRIPTION</p> <p style="padding-left: 40px;">Assessments to be completed</p> <p style="padding-left: 40px;">Actions to be completed</p>			

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<u>Location</u>	<u>RAIMS No.</u>	<u>SWMU No.</u>	<u>Description</u>	<u>IDMS CODE</u>	
WAG 2	2006	86	C-631 Pump house and Cooling Tower	96	
	2007	87	C-633 Pump house and Cooling Tower	51	
	2008	88	C-635 Pump house and Cooling Tower	52	
	2009	89	C-637 Pump house and Cooling Tower	76	
WAG 5	2072	31	C-720 Compressor Pit Water Storage Tank	72	
	2071	76	C-632-B Sulfuric Acid (H2 SO4) Storage Tank	48	
	2341	77	C-634-B Sulfuric Acid (H2 SO4) Storage Tank	95	
	2069	169	C-410-E HF Vent Surge Protection Tank	91	
WAG 6	2510	11s	C-400 Trichloroethylene Leak Site (SS)	162	
	2509	26s	C-400 to C-404 Underground Transfer Line (SS)	161	
	2512	40s	C-403 Neutralization Tank (SS)	163	
	2513	47s	C-400 Technetium Storage Tank Area (SS)	164	
	2514	203s	C-400 Sump (SS)	165	
WAGS 9&11	2084	27	C-722 Acid Neutralization Tank	71	
	2082	28	C-712 Acid Neutralization Tank	87	
	2083	165	C-616-L Pipeline and Vault Soil Contamination	67	
	2085	170	C-729 Acetylene Building Drain Pits	69	
	1932	19	C-410-B Neutralization Lagoon	44	
	1931	20	C-410-E H Emergency Holding Pond	93	
	1933	41	C-410-C Neutralization Tank	45	
	WAGS 16&19	1953	78	C-420 PCB Spill Site	140
1947		137	C-746-A Inactive PCB Transformer/Sump	79	
1950		153	C-331 PCB Soil Contamination (West side)	22	
1951		155	C-333 PCB Soil Contamination (West side)	24	
1949		156	C-310 PCB Soil Contamination (West side)	25	
1952		161	C-743-T01 Trailer Site (Soil Backfill)	27	
1948		164	KPDES Outfall Ditch 017 Flume (Soil Backfill)	30	
2005		75	C-633 PCB Spill Site	47	
1999		92	Fill Area for Dirt from the C-420 PCB Spill Site	97	
2002		135	C-333 PCB Soil Contamination (North side of C-333)	21	
2001		154	C-331 PCB Soil Contamination (Southeast side)	23	
2004		160	C-745 Cylinder Yard Spoils Area (PCB Soil Contamination)	26	
2003		162	C-617-A Sanitary Water Line (Soil Backfill)	28	
2000		163	C-304 Building/HVAC Piping System (Soil Backfill)	29	
WAG 20	2011	166	C-100 Trailer Complex Soil Contamination (East side)	37	
	2012	172	C-726 Sandblasting Facility	38	
	2010	195	Curlee Road Contaminated Soil Mound	92	
	2013	200	Soil Contamination South of TSCA Waste Storage Facility	676	
	2690	212	C745-A Radiological Contamination Area		
WAG 21	2014	138	C-100 Southside Berm	62	
	2018	158	Chilled Water System Leak Site	31	
	2017	176	C-331 RCW Leak Northwest Side	32	
	2016	177	C-331 RCW Leak East Side	33	
	2020	180	Outdoor Firing Range (WKWMA)	34	
	2019	181	Outdoor Firing Range (PGDP)	35	
WAG 27	2516	196s	C-746-A Septic System (SS)	166	
	2517	209s	C-720 Compressor Shop Pit Sump (SS)	167	

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<u>Location</u>	<u>No.</u>	<u>No.</u>	<u>Description</u>	<u>CODE</u>
WAG 28	2518	99s	C-745 Kellogg Building Site (previously AOC #C) (SS)	168
	2519	183s	McGraw UST (SS)	169
	2520	193s	McGraw Construction Facilities (Southside Cylinder Yards) (SS)	170
	2521	194s	McGraw Construction Facilities (Southside) (SS)	171
	2522	204s	Dykes Road Historical Staging Area (SS)	172
WAG 23	2030	32	C-728 Clean Waste Oil Tank	4
	2031	33	C-728 Motor Cleaning Facility	5
	2026	56	C-540-A PCB Waste Staging Area	6
	2028	57	C-541-A PCB Waste Staging Area	7
	2024	74	C-340 PCB Spill Site	10
	2029	79	C-611 PCB Spill Site	11
	2025	80	C-540 PCB Spill Site	12
	2027	81	C-541 PCB Spill Site	13
	2629	1s	C-747-C Oil Land Farm (SS)	3058
	WAG 29	2056	38	C-615 Sewage Treatment Plant
2057		159	C-746-H3 Storage Pad	661
2054		178	C-724-A Paint Spray Booth	3055
WAG 30	2055	179	Plant Sanitary Sewer System	3056
	2064	55	C-405 Incinerator	46
	2067	98	C-400 Basement Sump (previously AOC #B)	142
	2061	101	C-340 Hydraulic System (previously AOC #E)	41
	2062	167	C-720 White Room Sump	68
	2063	192	C-710 Acid Interceptor Pit	83
	2068	198	C-410-D Area Soil Contamination	39
N/A	2693	N/A	Site-Wide RAD Soils	
N/A	2694	N/A	Site-Wide PCBs Soils	
<p>Past Accomplishments</p> <ul style="list-style-type: none"> - A "Core Team" working group consisting of the DOE, EPA, Kentucky Radiation Health & Toxic Agents Branch and the Kentucky Division of Waste Management (KDWM) agreed to change the CERCLA assessment and cleanup strategy of the SOU from assessment followed by cleanup to a strategy that addresses potential and continuing sources of contamination through early actions first, then address other priority sites through assessment followed by cleanup as required. - The agreed upon binning process will be performed by the Core Team, supported by data package development and technical support as necessary. The Core Team delayed the priority of binning for SOU until Surface Water and Groundwater activities are completed. SOU Binning activity began in FY 2001 but will continue into FY 2002. - Conducted a leak test, then developed and issued a leak test report for the C-712 Acid Neutralization Pit. <p>Future Accomplishments</p> <ul style="list-style-type: none"> - Develop and submit D0, D1 and D2 Remedial Investigation/Feasibility Study Work Plan (RI/FS WP). - Conduct RI/FS Field work in accordance with approved RI/FS WP. - Develop and submit D0, D1 and D2 Remedial Investigation/Feasibility Study Report. - Develop and submit D0, D1 and D2 Feasibility Study Report. - Develop and submit D0, D1 and D2 Proposed Remedial Action Plan. - Develop and submit D0, D1 and D2 Record of Decision (ROD). 				

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<ul style="list-style-type: none"> - Develop the Remedial Design and issue subcontract Request for Proposal to conduct remedial actions described in the ROD. - Develop and submit D0, D1, and D2 Land Use Control Implementation Plan. - Develop and submit D0, D1, and D2 Remedial Action Work Plan. - Evaluate proposals and award subcontract to perform remedial actions described in the ROD. - Conduct Remedial Action Fieldwork in accordance with the ROD, subcontract, and schedule. - Develop and submit D0, D1, and D2 Post Construction Report. - Transport newly generated and characterized wastes to an appropriate disposal facility. - Place wastes in disposal facility. - Completion of the data package development for soils SWMUs. - Completion of the binning of the soils SWMUs by the Core Team. <p>Scope (FY 2003 scope through completion)</p> <p>04.01.01.10.01 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, 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 element.</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"> - 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. - Respond and supply information to DOE for Lessons Learned, surveillance and audits, Citizens Advisory Board support, and other DOE reporting mechanisms. - Maintain the monthly subproject estimates and estimates at completion. <p>04.01.01.10.02 Characterization</p> <p>A Remedial Investigation/Feasibility Study (RI/FS) Work Plan (D0, D1, D2) for the Phase II assessment will be developed, finalized and approved. Fieldwork subcontractor will mobilize and execute RI Fieldwork. Following completion of fieldwork, subcontractor will demobilize and develop draft and final [D0, D1, D2] RI Report and Baseline Risk Assessment for review and approval.</p> <ul style="list-style-type: none"> - Binning packages for the SWMUs and AOCs will be placed on a FTP site for all Core Team members to review prior to binning. - Review of the available data on the SOU SWMUs by the core team (scoping) will be completed, and will define which SWMUs need further assessment, which are considered to be early actions, and which 		

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<p>will need no further action.</p> <ul style="list-style-type: none"> - Respond to regulator comments, if any, on the C-712 Acid Neutralization Pit leak test report. - A “Core Team” working group consisting of the DOE, EPA, Kentucky Radiation Control Branch and the Kentucky Division of Waste Management (KDWM) agreed to change the CERCLA assessment and cleanup of the SOU from assessment followed by cleanup to a strategy that addresses potential and continuing sources of contamination through early actions first, then addresses lower priority sites. - The agreed upon binning process will be performed by the Core Team, supported by data package development and technical support as necessary. The Core Team delayed the priority of binning for SOU until Surface Water and Groundwater activities are completed <p>04.01.01.10.03 FS-EE/CA-AM</p> <ul style="list-style-type: none"> - The D0, D1 and D2 FS will be developed and submitted to the regulators after incorporation of DOE comments on the D0 document. The D2 Feasibility Study Report will also submitted to the regulators for final approval pending receipt of comments from the KDWM and EPA on the D1 document. - The D2 Feasibility Study will be finalized and approved by KDWM and EPA. <p>04.01.01.10.04 PP/ROD</p> <ul style="list-style-type: none"> - The D0, D1, and D2 Proposed Plan will be written and submitted to the public for acceptance. The D0, D1 and D2 Record of Decision will be developed, pending acceptance of the proposed plan. - The Record of Decision will be completed and signed by the DOE and EPA, with concurrence from KDWM. <p>04.01.01.10.06 Remedial Action</p> <ul style="list-style-type: none"> - Develop the D0, D1, and D2 LUCIP. - Develop the Remedial Action Design. - Based on information contained in the draft Remedial Design, begin to develop a request for proposal for a Remedial Action subcontractor. - Select a subcontractor to perform remedial action. Subcontractor will develop a Remedial Action Work Plan, Construction Quality Assurance Work Plan, have these documents approved, mobilize to the field and begin fieldwork. - Complete remedial action fieldwork. Demobilize from the field and prepare a draft and final Post Construction and Remedial Action reports for review and approval by the regulators. <p>04.01.01.10.07 DOE Prime</p> <p>This scope of work supports off-site (Envirocare or Nevada Test Site) shipment for waste generated during this action.</p> <p>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</p>		

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<p>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.</p> <p>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.</p> <p>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.</p> <p>REQUIREMENTS/DRIVERS</p> <p>Bechtel Jacobs Company LLC Contract DE-AC05-98OR22700, December 18, 1997 Integrated Safety Management System Description, BJC-GM-1400, Revision 1, January 2001 Site Management Plan for PGDP, Fiscal Year 01 Annual Revision, November 2000 PGDP RCRA/HSWA Permit Number KY8-890-008-982 "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"</p> <p>As applicable, indicate other regulatory-related requirements. CERCLA: <u>Y/N</u> RCRA: <u>Y/N</u> DNFSB: <u>Y/N</u> DOE Orders: <u>Y/N</u> AEA: <u>Y/N</u> UMTRCA: <u>Y/N</u> State: <u>Y/N</u> Other: <u>Y/N</u></p> <p>WASTE VOLUMES Please see attached waste performance metrics, as applicable.</p> <p>PROJECT SCHEDULE Please see attached project summary schedule, and Milestone Status Summary Report.</p> <p>EXECUTION YEAR BASELINE Please see attached Budgeted Cost of Work Scheduled Plan.</p> <p>BASELINE BY YEAR Please see attached Baseline by Year Report.</p>		