

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

1. PROJECT TITLE/PARTICIPANT PGDP DMSA's/Bechtel Jacobs Company LLC		2. DATE 10/01/02	3. IDENTIFICATION NUMBER DE-AC05-98OR22700																
4. WBS ELEMENT CODE 04.01.01.25		5. WBS ELEMENT TITLE PAD DMSA																	
6. INDEX LINE NO. N/A	7. REVISION NO. AND AUTHORIZATION Rev 0		8. DATE 10/01/02																
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>There are 160 DOE Material Storage Areas (DMSAs) currently identified at the Paducah Gaseous Diffusion Plant (PGDP). Since September 5, 2000, multiple notices of violations (NOVs) and an administrative complaint have been issued by the Kentucky Department for Environmental Protection against the Department of Energy related to DMSAs. The primary objective of the DMSA Subproject is to implement the resulting settlement for the NOVs and administrative complaint. This will include characterization and disposition of solid and hazardous wastes discovered or generated within the 160 DMSAs at PGDP.</p> <p>LOGIC RELATIONSHIPS</p> <p>Removal of previously inventoried and stored LLW and PCB waste from DMSAs in C-333 and C-337 must be accomplished to allow for individual DMSA closure.</p> <p>SCOPE DESCRIPTION</p> <p>The scope includes characterization and disposition of approximately 630 thousand cubic feet of material stored in 160 DMSAs. This material will be evaluated for NCS, Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act (TSCA), radioactive, and solid waste concerns. PCB waste previously inventoried and stored in C-337 DMSAs and LLW previously inventoried and stored in C-333 DMSAs is addressed in the Waste Disposition Project and not included in the 630,000 cubic feet estimate. Newly generated TSCA waste will be packaged and stored. Disposal of PCB waste from DMSAs will be managed under a separate program according to 40 CFR 761 and TSCA Federal Facilities Compliance Agreement (FFCA) requirements. RCRA hazardous and solid waste will be packaged, stored, treated and disposed, as required. Radioactive waste will be disposed according to DOE requirements. Material in fixed equipment located within DMSA boundaries will be characterized and the waste generated managed in accordance with regulatory requirements. The scope excludes removal of fixed plant equipment structures and standing buildings.</p> <p>Release Sites and Facilities</p> <p>(Note: Disposition excludes fixed plant or attached equipment. Disposal of LLW and PCB waste within C-333 and C-337 DMSAs will be managed under separate subprojects.)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">SWMU No.</th> <th style="text-align: left;">DMSA No.</th> <th style="text-align: left;">RAIMS No.</th> <th style="text-align: left;">Description</th> </tr> </thead> <tbody> <tr> <td>213</td> <td>OS-02</td> <td>3103</td> <td>Scrap metal, wood, concrete parts, etc.</td> </tr> <tr> <td>214</td> <td>OS-03</td> <td>3104</td> <td>Drums, desk, product oil drums, plastic dikes</td> </tr> <tr> <td>215</td> <td>OS-04</td> <td>3105</td> <td>Railroad tank car (rainwater discovered in car)</td> </tr> </tbody> </table>				SWMU No.	DMSA No.	RAIMS No.	Description	213	OS-02	3103	Scrap metal, wood, concrete parts, etc.	214	OS-03	3104	Drums, desk, product oil drums, plastic dikes	215	OS-04	3105	Railroad tank car (rainwater discovered in car)
SWMU No.	DMSA No.	RAIMS No.	Description																
213	OS-02	3103	Scrap metal, wood, concrete parts, etc.																
214	OS-03	3104	Drums, desk, product oil drums, plastic dikes																
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04.01.01.25			PAD DMSA	
216	OS-05	3106	Fire extinguishers, drums, concrete block, scrap metal	
217	OS-06	3107	Scrap materials, excess equipment, drums, miscellaneous items	
218	OS-07	3108	Drums, plastic wrapped items, process equipment	
219	OS-08	3109	Fiberglass tank, the other two tanks are SWMU 32	
220	OS-09	3110	Vehicles, some process equipment, Cushmans	
221	OS-10	3111	Empty	
222 & 76	OS-11	3112	Miscellaneous equipment. Sulfuric acid tank is SWMU 76.	
223	OS-12	3113	Excess equipment, scrap items	
224	OS-13	3114	Roll off bin with 49 drums	
225	OS-14	3115	Tank cars (4) and flatbeds (4)	
226	OS-15	3116	Coolers and small cylinders	
227	OS-16	3117	Miscellaneous and process equipment	
228	OS-17	3118	Forklifts, towmotors, etc.	
229	OS-18	3119	Rail road lay-down yard with miscellaneous scrap	
230	C310A-01	3120	Pumps (four)	
231	C310-02	3121	Process equipment, metal parts, pallets of materials	
232	C310-03	3122	Process equipment, tanks, metal parts.	
233	C-310-04	3123	Pumps (2 large)	
234	C-310-05	3124	Air dryer (1)	
235	C331-01	3125	K-25 and Portsmouth Process Equipment	
236	C331-02	3126	Currently empty	
237	C331-03	3127	Miscellaneous process equipment	
238	C331-04	3128	LLW Drums (asbestos, rags, floor sweep)	
239	C331-05	3129	Process equipment, motors, piping	
240	C331-06	3130	Process equipment, miscellaneous	
241	C331-07	3131	Wood box with pipe	
242	C331-08	3132	Currently empty	
243	C331-09	3133	K-25/Portsmouth equipment, scrap metal, B-25 box marked empty.	
244	C331-10	3134	K-25/Portsmouth equipment (centrifugal compressor parts), pallets	
245	C331-11	3135	Transformers	
246	C331-12	3136	Process and miscellaneous equipment, tools	
247	C331-13	3137	Process equipment	
248	C331-14	3138	Miscellaneous process equipment, valves, heat exchangers, piping	
249	C331-15	3139	Miscellaneous process equipment, valves, plastic wrapped items	
250	C331-16	3140	42 B-25 boxes, miscellaneous process equipment	
NA	C331-17	NA	674 UF4 Drums	
NA	C331-18	NA	88 UF4 Drums and 2 test weights	
251	C331-19	3141	3 cabinets, equipment and trash	
252	C331-20	3143	Plastic wrapped equipment	
NA	C331-21	NA	104 UF4 Drums	
253	C331-22	3144	Plastic wrapped equipment, UF4 drums	
254	C331-23	3145	Empty	
255	C331-24	3250	Pallets (plastic wrapped), Four plastic wrapped motors	
256	C333-01	3146	Process equipment, B-25 boxes (2), compressors, cylinders, carts	
257	C333-02	3251	320 LLW drums (trash, PPE, asbestos, etc.)	
258	C333-03	3148	410 LLW drums (trash, scrap metal, tacky mats, PPE, asbestos, etc.)	
259	C333-04	3149	237 LLW drums (wood, paper, plastic, scrapmetal, PPE, asbestos, etc.)	
260	C333-05	3150	333 LLW drums (scrap motors and parts, PPE, trash, etc.)	
261	C333-06	3151	239 LLW drums (trash, scrap metal, tacky mats, ppe, asbestos, etc.)	
262	C333-07	3152	169 LLW drums(trash, PPE, Alumina trap mix, seal exhaust, etc.)	
263	C333-08	3153	PCB Storage area-drums	
264	C333-09	3154	33 LLW drums (asbestos, UF4 filters, etc.) & 23 pallets	

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265	C333-10	3155	2 pallets	
266	C333-11	3156	Miscellaneous process equipment, storage cabinets, bagged PPE	
267	C333-12	3157	375 LLW drums (PPE, plastic, paper, trash, rags, metal, etc.)	
268	C333-13	3158	227 LLW drums (floor sweep, trash, etc.)	
269	C333-14	3159	116 LLW drums (trash) 3-5 gallon container	
270	C333-15	3160	54 LLW drums (floor sweep, trash, tyvek, etc.)	
271	C333-16	3161	Storage Cabinets, 280 UF4 drums, 16 B-25 Boxes, 8 oil drums	
272	C333-16	3162	Equipment, waste oils, metal parts, B-25 boxes (scrap metal)	
273	C333-17	3163	80 LLW drums (sampling debris, contaminated trash, plastic, etc.)	
274	C333-18	3164	Wood pallet	
275	C333-19	3165	Miscellaneous equipment	
276	C333-20	3166	Process equipment and materials, rolls of cable, plastic covered equipment, 2-B-25 boxes, file cabinets.	
277	C333-21	3167	Cables, process equipment, air conditioners	
278	C333-22	3168	Equipment/ metal parts	
279	C333-23	3169	Miscellaneous process equipment, rolls of cable, gasoline welder, scrap	
280	C333-24	3170	171 LLW Drums (trash, paper, tyvek, HVAC filters, floorsweep, gaskets, etc.)	
281	C333-25	3171	241 LLW Drums (sand, insulation) 20 pallets	
282	C333-26	3172	144 LLW Drums (contaminated trash, asbestos)	
283	C333-27	3173	109 LLW Drums (trash asbestos, U-contam metal, paper, plastic, etc.)	
284	C333-28	3174	LLW Drums (empty)	
285	C333-29	3175	66 LLW Drums (trash, asbestos, floor sweep, etc.)	
286	C333-30	3176	28 LLW Drums (C-340 slag, magnesium oxide, etc.)	
287	C333-31	3177	Misc. process equip, junk pile in fenced area, scrap metal, B-25 boxes.	
268	C333-32		40 UF4 Drums Adjacent to C333-13 (SWMU 268)	
270	C333-33		73 LLW Drums Adjacent to C333-15 (SWMU 270)	
288	C333-34	3178	198 Low-level waste drums (trash, concrete, metal, etc.) 4-5 gallon buckets	
289	C333-35	3179	Low-level waste drums (asbestos, contaminated mates, trash)	
273	C333-36		160 LLW Drums Adjacent to C333-17 (SWMU 273)	
290	C333-37	3180	24 barrels activated carbon, 2 transformer coils	
291	C333-38	3181	B-25 boxes (3) (rad metal)	
292	C333-39	3182	Miscellaneous materials covered by black plastic, process equipment, dry type transformers	
293	C333-40	3183	Process equipment (condenser) with converter wagon	
294	C333-41	3184	144 LLW Drums (asbestos, trash, etc. 2 4x8 sheets of transite	
295	C333-42	3185	32 LLW Drums (floor sweep, mop heads, etc.) B-25 box containing a Unit one electrical cage. 1-35 gallon plastic drum	
296	C333-43	3186	Drum storage area, used oil drums, loose circuit boards, process equip., hoses, misc. equip., metal scrap, 318 LLW drums	
297	C335-01	3187	Empty	
298	C335-02	3188	Process equipment	
299	C335-03	3189	Misc. process equip, plastic wrapped equipment, drums, motors, tires, 2 B-25 Boxes, and 132 LLW Drums	
300	C335-04	3190	Process equipment	
301	C335-05	3191	Process equipment, scrap metal	
302	C335-06	3192	Process equipment wrapped in black plastic	
303	C335-07	3193	Process equipment	
304	C335-08	3194	Process equipment, scrap metal, and 105 UF4 Drums	
305	C335-09	3195	Process equipment and 180 UF4 drums	
NA	C335-10		Empty	

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306	C335-11	3196	Scrap Metal, pallets, sandbags, open bin	
307	C335-12	3197	Pallet with welded valves and hoses, molecular sieve stand	
308	C337-01	3198	73 PCB Low-level waste drums	
309	C337-02	3199	121 PCB Low-level waste drums	
310	C337-03	3200	Trash	
311	C337-04	3201	223 PCB Low-level waste drums	
312	C337-05	3202	310 PCB Low-level waste drums	
313	C337-06	3203	116 PCB Low-level waste drums	
314	C337-07	3204	120 PCB Low-level waste drums	
315	C337-08	3205	54 PCB Low-level waste drums	
316	C337-09	3206	88 PCB Low-level waste drums	
317	C337-10	3207	40 PCB Low-level waste drums	
318	C337-11	3208	45 PCB Low-level waste drums	
319	C337-12	3209	777 PCB Low-level waste drums	
320	C337-13	3210	172 PCB Low-level waste drums	
321	C337-14	3211	94 PCB Low-level waste drums	
322	C337-15	3212	42 PCB Low-level waste drums	
323	C337-16	3213	48 PCB Low-level waste drums	
324	C337-17	3214	87 PCB Low-level waste drums	
325	C337-18	3215	115 PCB Low-level waste drums	
326	C337-19	3216	228 PCB Low-level waste drums	
327	C337-20	3217	320 PCB Low-level waste drums	
328	C337-21	3218	182 PCB Low-level waste drums, B-25 boxes	
NA	C337-22		80 UF4 Drums and 1 Drum containing pipes	
329	C337-23	3219	Miscellaneous equipment	
NA	C337-24		88 UF4 Drums	
330	C337-25	3220	Miscellaneous equipment, scrap metal, process equipment	
NA	C337-26		168 UF4 Drums	
331	C337-27	3221	Miscellaneous equipment	
NA	C337-28		24 UF4 Drums	
332	C337-29	3222	20 Type A boxes, 3 poly tanks	
333	C337-30	3223	118 PCB Low-level waste drums, 64 UF4 drums, 2 boxes, 11 process traps	
334	C337-31	3224	Miscellaneous equipment and process equipment	
335	C337-32	3225	2-PCB transformers	
336	C337-33	3226	4-PCB transformers	
337	C337-34	3227	empty	
338	C337-35	3228	Miscellaneous equipment, metal, fan, pipe	
339	C337-36	3229	Miscellaneous equipment (2 20' sealand containers)	
340	C337-37	3230	Empty	
341	C337-38	3231	Empty	
342	C337-39	3232	Empty	
343	C337-40	3233	204 PCB Low-level waste drums	
344	C337-41	3234	Miscellaneous and process equipment	
345	C337-42	3235	293 LLW Drums (rags, trash), cables, fan housing	
346	C337-43	3236	119 LLW Drums (asbestos, rags, floor sweep, trash)	
347	C337-44	3237	144 LLW Drums (asbestos, rags)	
348	C337-45	3238	264 LLW Drums (asbestos, pads, absorbent)	
349	C400-01	3239	Process Equipment (TCA Degreaser and No. 1 Dissolver) 2 traps, vacuum cleaner, and misc. equipment	
350	C400-04	3240	Previously stored misc. scrap materials, process equipment, drums	
351	C400-05	3241	Test loop area, misc. scrap materials and intact equipment, drums	

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352	C400-06	3242	Tanks (5)	
353	C400-07	3243	Miscellaneous equipment	
354	C409-01	3244	Miscellaneous process equipment, plastic wrapped lab equipment	
355	C409-02	3245	Process equip., pipes, plastic wrapped items, pallets, valves, piping, buckets, ladders, converter slings, scrap metal,	
356	C720-01	3246	Varnish tanks and miscellaneous trash	
357	C720-02	3247	Vacuum welder, bucket, chair, floor fans	
358	C720-03	3248	Vertical turning blade, trash cans, hopper	
359	C720-04	3249	G and L horizontal mill (scrap equipment)	
Past and Future Accomplishments				
Past Accomplishments (as of 9/30/02)				
Performed DMSA landlord activities.				
Performed NCSE of 3 converters located in the High Priority DMSA's.				
Completed characterization reports for 27 DMSAs.				
Initiated characterization activities in 63 DMSAs.				
Initiated preliminary RCRA Permitting and Closure activities (removal of discovered hazardous waste) in 14 DMSAs.				
Completed response to Commonwealth of Kentucky Discovery Request received 3/15/02.				
Future Accomplishments				
Complete characterization of all remaining 133 DMSAs.				
Complete waste packaging and certification for all remaining 160 DMSAs.				
Complete shipment, treatment, or disposal of waste removed from DMSAs.				
Complete close out and deletion of 160 DMSAs from the DMSA listing.				
Scope:				
04.01.01.25.01 DMSA Characterization/Remediation Implementation. Perform Project Integration including project management, facility management, project control, baseline planning, baseline change control, landlord oversight including walk downs of DMSAs, work control, waste generator services technical support, and procurement. Perform Facility & Nuclear Criticality Safety services (such as preparation of Unreviewed Safety Question Screenings, Determinations & Summaries, Safety Basis Document annual updates, preparation of updated Authorization Agreements, Implementation of Documented Safety Authorizations, development and maintenance of safety basis documentation for non-nuclear facilities, Nuclear Criticality Safety Evaluation/Approvals, Basis for Interim Operations, and Justification for Continuing Operations as needed). Perform Sample & Data Management services (such as prepare and processing of statements of work for analytical services, data verification, data validation, downloading of data, data tracking), Quality Assurance support (such as command media preparation & maintenance, occurrence report preparation and response support, corrective action tracking and closure support, oversight and assessment support). Provide Environmental Compliance support (such as providing regulatory policy, guidance, reporting, preparation of solid waste management unit assessment reports, preparation of closure plans, preparation of National Environmental Policy Act documentation, and provide environmental compliance oversight). Provide Radiological Engineering and routine radiological survey support and oversight. Provide Safety and Industrial Hygiene policy, guidance, and oversight. Provide Waste Management support (such as waste management reviews & evaluations for characterization, inventorying, tracking, packaging, storage, shipment, treatment, and disposal of DMSA waste). Provide Engineering support (such as preparation of DMSA maps, drawings, designs, and evaluations of DMSA equipment & systems). Field Execution: Perform material inventory and transfers, security reviews & evaluations,				

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waste determinations, NCS, RCRA Hazardous, TSCA, radioactive & solid waste characterizations, waste packaging, marking, inventory tracking, certification, and shipment preparation for approximately 630,000 cubic feet of material stored in 160 DMSAs. Perform transportation activities for treatment and disposal. Complete close out of 160 DMSAs. Provide documentation and reporting necessary to track material from DMSA to disposition.		
04.01.01.25.02 DMSA-Treatment and Disposal (DOE Primes). Perform the off-site treatment and disposal services for DMSA waste.		
ISMS Description		
It is the core value of Bechtel Jacobs Company LLC (BJC) 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 BJC 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.		
Before the DMSA subproject began field activities, an independent internal readiness assessment was completed. This assessment demonstrated that mechanisms were in place to identify and control potential hazards. The DMSA subproject operates under a safety evaluation report for NCS characterization and an authorization agreement. At the field activity level, work is safely performed and controlled through the use of work packages. These work packages utilize and include a field work request with a scope of work, procedures, instructions, requirements for hazard analysis, hazard control, worker involvement, worker feedback, approvals and notifications, and close out.		
REQUIREMENTS/DRIVERS		
Bechtel Jacobs Company LLC Contract DE-AC05-98OR22700, December 18, 1997 Integrated Safety Management System Description, BJC/OR-87, Revision 2, September 1999 List other Requirements/Drivers for the scope of the Subproject (RODs, Permits, Laws)		
Other Regulatory –related requirements: RCRA, TSCA, DOE Order 435.1, and KDEP NOV's of September 5, 2001, subsequent NOV's.		
Administrative Complaint DWM-31434-030, filed by the Kentucky Natural Resources and Environmental Protection Cabinet verses United States Department of Energy on October 26, 2001.		
As applicable, indicate other regulatory-related requirements.		
CERCLA: N RCRA: Y DNFSB: Y DOE Orders: Y AEA: Y UMTRCA: Y/N State: Y Other: TSCA		
WASTE VOLUMES		
Please see attached waste performance metrics, as applicable.		
PROJECT SCHEDULE		
Please see attached project summary schedule, and Milestone Status Summary Report.		

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<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>		