

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

1. PROJECT TITLE/PARTICIPANT Uranium Program/Bechtel Jacobs Company LLC		2. DATE 10/01/02	3. IDENTIFICATION NUMBER DE-AC05-98OR22700
4. WBS ELEMENT CODE 04.02.04.02		5. WBS ELEMENT TITLE Facilities and Other	
6. INDEX LINE NO. N/A	7. REVISION NO. AND AUTHORIZATION Rev 2		8. DATE 01/23/03
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>See attached.</p> <p>INTRODUCTION</p> <p>The Paducah Uranium Programs Facility Maintenance Project has been established to provide surveillance and maintenance of DOE non-leased inactive facilities and land areas not addressed by the Environmental Management Program. There are a total of 15 Inactive Facilities and approximately 200 acres of land area that are maintained by Uranium Programs under this WBS.</p> <p>The objective of the WBS is:</p> <p>WBS 04.02.04.02.01 – Surveillance and Maintenance Activities – Maintain the facilities through periodic inspections to ensure that the facilities remain in a safe configuration prior to transition to the EM Program for Decontamination & Decommissioning (D & D). Maintain the approximately 200 acres of land area which was de-leased by USEC to DOE in FY 1998 to ensure that the areas are maintained in a safe manner and in compliance with applicable regulations. Segregate, inventory, characterize, and dispose of the waste generated from the cleanup of C-415. Dispose of 22 5-ton T-hoppers containing depleted uranium tetrafluoride (UF₄) material. Also included are those oversight activities necessary to manage the Facilities and Other baseline.</p> <p>LOGIC RELATIONSHIPS</p> <p>The 15 inactive facilities will be transitioned to the EM Program for Decontamination & Decommissioning (D & D) at the end of FY2010. The 200 acres of de-leased land area will be transitioned to the EM Program (WBS 04.02.01.02 Routine Surveillance & Maintenance) at the end of FY 2009.</p> <p>ACRONYMS</p> <p>BJC Bechtel Jacobs Company LLC D&D Decontamination and Decommissioning DOE Department of Energy EM Environmental Management ft³ cubic feet LLW Low level waste MLLW RCRA mixed low level waste</p>			

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<p>NTS Nevada Test Site PPE Personal Protective Equipment PACM Potentially asbestos containing material RCRA Resource Conservation and Recovery Act SWMU Solid Waste Management Unit TSCA Toxic Substances Control Act USEC United States Enrichment Corporation</p>		
<p>SCOPE DESCRIPTION</p>		
<p>Release Sites and Facilities</p>		
<p>Assessments to be completed – NA</p>		
<p>Actions to be completed – NA</p>		
<p>Past and Future Accomplishments</p>		
<p>Past Accomplishments</p>		
<p>Completed scheduled routine inspections of the Inactive Facilities.</p>		
<p>Completed annual ES&H walk-down inspections of the Inactive Facilities.</p>		
<p>Completed annual engineering inspections of the Inactive Facilities.</p>		
<p>Maintained the de-leased land acreage in a safe and compliant manner.</p>		
<p>Completed disconnection of C-603 from USEC utilities.</p>		
<p>Future Accomplishments</p>		
<p>Complete scheduled routine inspections of the Inactive Facilities.</p>		
<p>Complete annual ES&H walk-down inspections of the Inactive Facilities.</p>		
<p>Complete annual engineering inspections of the Inactive Facilities.</p>		
<p>Maintain the de-leased land acreage in a safe and compliant manner.</p>		
<p>Complete sorting, segregation, repackaging and disposal of waste generated during cleanup of C-415.</p>		
<p>Complete removal of C-603 nitrogen tank.</p>		
<p>Complete disposal or transfer of 22 five-ton T-hoppers.</p>		
<p>Scope</p>		
<p>WBS 04.02.04.02.01 Surveillance & Maintenance Activities</p>		
<p>The following 15 Inactive Facilities are maintained under the WBS:</p>		
<p>C-204 Disintegrator Building; C-218 Firing Range; C-402 Lime House; C-403 Neutralization Pit; C-405 Contaminated Item Incinerator; C-410A Hydrogen Holder Tank; C-410-B Sludge Lagoon; C-603-A Nitrogen Manifold; C-603-B Nitrogen Storage Tank; C-603-C Nitrogen Receiver (North); C-603-D Nitrogen Receiver (South); C-603-H Nitrogen Generator Control House; C-603-I Nitrogen Generator Tower Area; C-611-M North Sanitary Water Storage Tank; and C-611-N South Sanitary Water Storage Tank. All of these facilities are currently shutdown and are in an inactive condition.</p>		
<p>Routine inspection/surveillance of the facilities will be performed to ensure that each facility remains structurally sound, in a radiological safe condition, and that hazardous materials or conditions are identified and corrected/properly stored. Facility inspections will be performed on an annual and semiannual basis with the primary purpose to identify health, safety, and environmental concerns. Routine health physics surveys will be performed on the facilities quarterly and health physics support is provided to personnel for facility access as</p>		

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necessary. An engineering inspection of facility roofs, tanks, and structures are performed annually of each facility to determine the structural adequacy and to identify needed maintenance or repairs. An ES&H walk-down inspection is also performed on an annual basis to assess facility conditions and identify ES& H issues.

Minimal unscheduled corrective maintenance will be performed on the facilities as necessary to primarily address conditions that pose a threat to workers, the public, or the environment. The areas immediately around the C-611-M and C-611-N facilities will be maintained by mowing/trimming.

The WBS includes monthly maintenance of the approximately 200 acres of de-leased acreage in accordance with the associated schedule. The areas are maintained by mowing and trimming the grass April through September.

Specific areas are listed below:

- Northwest General Area – Section 2 – Area surrounding the C-745-B cylinder storage yard.
- Northeast General Areas – Sections 1, 2 &3 - Area begins at 14th Street between Virginia and Vermont Avenues and extends westward to 10th Street. At the intersection of Vermont Avenue and 11th Street, the area turns north and extends to Patrol Road #2. Area east of intersection of Washington Avenue and 11th Street. Fields east of the C-637 Cooling Tower complex to Patrol Road # 3 and west of C-637 Cooling Tower complex to 20th Street. Areas are bounded by Vermont Avenue to the south and Washington Avenue to the north.
- West Side of C-400
- Southeast General Areas – Field bounded by 10th Street to the west, Tennessee Avenue to the north, 12th Street to the east, and up to an imaginary line north parallel to the C-710 north driveway. Area beginning at C-315 and extending north to Tennessee Avenue between 16th and 18th Streets, continuing east between Penn. Avenue and ditch 010 to the north. Past C-531 switchyard, south to Alabama Avenue between Patrol Road #3 and 22nd Street. Fields between 22nd Street and east gravel road around C-633 cooling tower complex. From Alabama Avenue to Missouri Avenue between the west gravel road around the C-633 cooling tower complex and 21st Street, broadening to 18th Street beginning at Kentucky Avenue. Michigan Avenue and extending to C-342 facility between 16th and 18th Streets. East of C-333 bounded by 13th Street on the east, the cylinder yards on the south, Patrol Road #5 on the west, and Trailer C-340-T1 on the north. The area around C-746-Q and C-746-Q1.
- Southwest General Areas – Sections 1 and 3 – Field beginning at Ohio Avenue and extending to Virginia Avenue between Patrol Road # 1 and 4th Street (except for C-615 facility, C-615-C, and C-745-A cylinder yard). Area bounded by Tennessee Avenue, 6th Street, Virginia Avenue, and C-600 complex.
- Curlee Road Area – Area bounded by Curlee Road, ditch 009, C-811 parking lot, and Access Road. Area between Curlee Road and Water Works Road, bounded by Big Bayou Creek on the south and west.
- C-103 DOE Building Area
- Area east of C-611 – Area between C-611 and Big Bayou Creek bounded by Waterworks Road to the south.
- C-611-N and C-611-M Concrete Sanitary Water Storage Tanks, KOW – Area inside the fence and approximately five feet beyond the outside of the fence.

Health Physics support of these activities is also provided for in the WBS.

C-415 Waste – Nine Sealand containers and 13 B-25 boxes of miscellaneous debris were accumulated due to the cleanup of the C-415 facility. Most of these materials are radiologically contaminated. The existing containers will be opened and the contents will be sorted and segregated for repackaging. Any RCRA (if found) or TSCA concerns will be identified and properly characterized for disposal. The remaining materials will be repackaged and characterized as debris or low-level waste. Wastes will be shipped off-site for disposal or taken to the C-746-U landfill as appropriate.

C-603 Tank – The abandoned nitrogen tank will be removed from the concrete supports and temporarily stored onsite until final off-site disposition can be arranged.

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<p>T-Hoppers – The 22 5-ton T-hoppers of UF4 will be characterized and removed from the site, either through transfer to the Portsmouth Management Center (if this option is available) or to an off-site disposal facility.</p> <p>Technical Management and Integration - The WBS includes project management and technical integration associated with management of the work including monitoring, control, and reporting of project performance; budget control and accounting; planning, scheduling, and estimating; and system integration including interfacing with the client and subcontractors. Technical management and integration activities include the project management and support necessary to ensure that all activities in the remaining WBS elements are completed. It includes those activities from management and financial support groups necessary to ensure completion of activities in compliance with regulations, DOE orders, or other requirements.</p> <p>Specific activities include:</p> <ul style="list-style-type: none"> - Miscellaneous materials and travel - Personnel necessary to provide the appropriate level oversight are included in this WBS element. A project manger, deputy project manager, lead engineering , secretarial support, estimating support, and project controls engineer will work to: <ul style="list-style-type: none"> - Ensure completion of all activities in compliance with the principals of Integrated Safety Management. - Maintain contact and open communications with the appropriate DOE Project Manager(s). - Participate in technical information meetings to provide project status summaries to DOE. - Manage the subcontracts, self-performed work, and work authorizations issued to complete the work. - Respond and supply information to DOE for Lessons Learned, surveillance and audits, Site-Specific Advisory Board support, and other DOE reporting mechanisms. <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 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>		

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<p>REQUIREMENTS/DRIVERS</p> <p>Bechtel Jacobs Company LLC Contract DE-AC05-98OR22700, December 18, 1997 Integrated Safety Management System Description, BJC/OR-87, Revision 2, September 1999</p> <p>As applicable, indicate other regulatory-related requirements. CERCLA: N RCRA: N DNFSB: N DOE Orders: Y AEA: N UMTRCA: N State: N Other: N</p> <p>WASTE VOLUMES</p> <p>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.</p> <p>PROJECT SCHEDULE</p> <p>Please see attached project summary schedule, project detail schedule, and Milestone Status Summary Report.</p> <p>EXECUTION YEAR BASELINE</p> <p>Please see attached Budgeted Cost of Work Scheduled Plan.</p> <p>BASELINE BY YEAR</p> <p>Please see attached Baseline by Year Report.</p>		