

D&D Experience



Project Enhancement Corporation



www.projectenhancement.com

**Contact PEC
(240) 686 3059**

**Jay Traverso
Chuck Negin
Chuck Urand**

PEC Experience

PEC provides D&D project planning and project management, often teamed with demolition companies for conduct of work in the field. The purpose here is to provide a synopsis of our D&D work, which is shown in the listings and project descriptions that follow.

PEC is a certified 8(a) small disadvantaged business founded in 1998, with 50 employees managing or supporting complex facilities D&D (Deactivation & Decommissioning) and a variety of other technical projects at DOE sites across the country. With 2002 revenues of \$10 million, PEC provides certified, well-trained technical personnel in the areas of nuclear materials, facilities D&D, environmental cleanup, and program and project management. The company has grown to 50 people on the strength of consulting and project management excellence in facilities at 11 sites.

PEC has been the prime contractor for the National Facility D&D Initiative (NFDI), sponsored by DOE-HQ and DOE-RL, which has developed and promulgated several technical, project planning, cost estimating, and management innovations for facility deactivation. In December 2000, the NFDI program and PEC were awarded a Vice Presidential “Hammer” award for its efforts in reducing the cost of DOE’s cleanup mission.

PEC is recognized by DOE-HQ as experts in project planning, management, and controls; D&D; radiation control; national security issues; requirements-based costs reviews; quality assurance; and ES&H.

Table 1 contains a listing of PEC’s projects that for planning and project management support D&D projects. That table is followed by four specific project examples.

Table 1 – PEC D&D Related Projects

PEC Job Name and Location	Owner Name and Client	Description
Lawrence Berkeley National Laboratory	University of California	With DEMCO, Project Management Plan for dismantling the cyclotron within Building 88
Lawrence Berkeley National Laboratory	University of California	With DEMCO, Project Management Plan for demolition of the Bevatron and Building 51.
Princeton Plasma Physics Lab	Princeton University	With DEMCO, removal of the Princeton Beta Experiment Machine and clearing of the facility.
Hanford - Plutonium Finishing Plant (PFP)	Fluor Hanford, Inc.	<p>PFP Stabilization & Decommissioning example tasks:</p> <ul style="list-style-type: none"> • Led the “Tiger Team” with the responsibility of re-baselining the plutonium stabilization project. Conducted trade studies and participate in driving decisions to accelerate the stabilization project. • Assisted the accelerated of the packaging of Pu Materials into 3013 compliant containers. • Provided project engineering and fabrication expediting for a system to stabilize plutonium nitrate solutions. • Continues to provide staff support and technical assistance to PFP for D&D baseline development addressing subjects such as characterization, holdup removal, and others.
Rocky Flats Environmental Technology Site (RFETS)	Department of Energy	Provided RFETS lessons-learned to Hanford managers for PFP D&D.
Savannah River Site (SRS)	Westinghouse Savannah River Corporation	F-Area Deactivation: Drafted the initial deactivation plan for the F-Canyon and FB Line. Document included endpoints development and deactivation cost estimate.
Los Alamos National Laboratory Tritium Systems Test Assembly (TSTA)	Department of Energy	<ul style="list-style-type: none"> • D&D conceptual baseline • End Points Specification • End Points Validation

PEC Job Name and Location	Owner Name and Client	Description
Idaho Nuclear Engineering & Environmental Laboratory	Bechtel, Babcock & Wilcox	<ul style="list-style-type: none"> • Provide shift engineers to expedite the removal and drying of TMI fuel canisters from the Test Area North Hot Shops to dry storage. • Conducted independent demolition cost estimate and development of deactivation end points for Loss of Flow Test Facility. • Provided recommendations for deactivation end points and phased retirement of S&M for the Power Burst Facility.
Oak Ridge K-25 & K-27	Assistance to DOE field office	<ul style="list-style-type: none"> • Independent technical review and develop recommendations for the draft RFP for dismantling of K-25 & K-27 process equipment. • Conducted a project risk assessment.
Oak Ridge Building 3019	Bechtel	Provided completion end point specifications following the processing of U-233 in storage in support of a solicitation of bids for milking of medical isotopes.
Knolls Atomic Power Lab – SPRU Facility	Department of Energy	<ul style="list-style-type: none"> • Developed D&D recommendations. • Estimate for transfer of the facility to DOE-EM for management of D&D.
Hanford, PUREX	PEC staff involvement prior to formation of PEC. Work was for the DOE and Westinghouse.	<p>PUREX Deactivation example Tasks:</p> <ul style="list-style-type: none"> • Strategic Planning/Stakeholder & Regulator Interface • Project Planning/Cost Estimating (Activity Based Cost Estimating) • Project Execution/Tracking/Reporting • Endpoints Process • Regulatory Strategy Development • Integrated Safety and Health Plan Development • Headquarters/State Department/International Interface • Technical Assistance and Project Expediting • Management and Organizational Restructuring
Hanford, B-Plant	PEC staff involvement prior to formation of PEC. Work was for the DOE and Westinghouse.	<p>B Plant Deactivation example tasks:</p> <ul style="list-style-type: none"> • HEPA Filter Vaults D&D concept development. • Endpoints Consulting • Study of the ventilation consolidation that eliminated the use of the B-Plant main stack. • WESF ventilation evaluation

PEC Job Name and Location	Owner Name and Client	Description
Perry Nuclear Power Plant	Cleveland Electric	PEC staff prior experience includes decontamination of service water pump house, service bldg. and storm drains requiring NRC & EPA approvals.
Three Mile Island Nuclear Power Plant	General Public Utilities	PEC staff prior experience includes technical planning for decontamination and waste management. NRC regulated.
Oyster Creek Nuclear Power Plant	General Public Utilities	PEC staff prior experience includes technical planning for conversion of a contaminated storage area for use for waste staging. NRC regulated.
IAEA	International Atomic Energy Agency	Participated in creating a technical document on transition of facilities from operating to pre-decommissioning
IAEA	International Atomic Energy Agency	Participated in creating a technical document on decommissioning of underground features.
NEA	OECD	Participated in a report on nuclear power plant decommissioning costs.

Princeton Plasma Physics Laboratory – The Beta Experiment (PBX)

Owner: US Department of Energy & Princeton University

Contract: \$200,000

Description: Demolition, Removal, and Salvage

Duration: 10 weeks June-August 2003

Contamination: None



PEC-DEMCO Team Project

Work Scope:

- Detailed plans for removal, rigging, health and safety
- Disassemble 300 ton machine for salvage
- Clean out high bay area for new installation

Lawrence Berkeley National Laboratories – Bevatron & Building 51

Owner: US Department of Energy

Contract \$53,000.

Description: D&D Planning

Duration: 6 weeks June-July 2003

Contamination: Activated concrete and metals with relatively low levels of activity. Planning assumes standard PPE as well as asbestos worker protection.



Work Scope:

- Walkdown of the facility, review of conditions, independent determination of material quantities, facilitation of identification of facility interfaces, gathering facility historical input, etc.
- Identified D&D sequence and activities, identified end points for the project, created integrated project schedule, identified equipment needed, identified facility interface isolation needs, estimated waste and shipping estimated costs for demolition and disposal.
- Evaluated budget cycle and impacts of stretched out funding
- Wrote a CD-1 Project Management Plan to capture the above.

Hanford Plutonium Finishing Plant

Owner: US Department of Energy,
Managed by Fluor Hanford, Inc.

Contract \$750,000 (includes some
sponsorship by DOE-HQ), Task
Orders

Description: Integrated Project Management
Planning

Duration: 1999 – 2003

Contamination: Plutonium contaminated process
equipment.



Work Scope:

Provided a variety of services related to the plutonium stabilization phase and the D&D of the Plutonium Finishing Plant (PFP) at Hanford. Example tasks include:

- Lessons Learned recommendations from Rocky Flats for input to planning.
- Facilitated reviews and decisions related to the processing of several physical forms of plutonium materials.
- Participated in the integrated planning for PFP including phases of stabilization, material disposition, maintaining min-safe, and D&D.
- Facilitated decisions on how to proceed with metal stabilization.
- Project engineering, scheduling, and expediting for design, testing, and installation of system to stabilize plutonium nitrate solutions.
- Study and recommendations for alternative storage of stabilized material.
- Facilitated transfer of excess size-reduction and robotic equipment from Rocky Flats.
- Options study for disposal of waste settling tank with plutonium-laced sludge.
- Expedited fabrication of glovebox line for drying and canning of stabilized materials.

Los Alamos Tritium System Test Assembly

Owner: US Department of Energy

Contract No: This work was done over the course of 3 or 4 different contracts. Total value was about \$150,000.

Description: D&D Planning

Duration: 2000 - 2003

Contamination: Tritium



Work Scope:

- Walkdown of the facility, review of conditions, recommended end points, estimated costs for transfer of the facility from the DOE Office of Nuclear Energy to the DOE Office of Environmental Management (DOE-EM).
- Wrote a Level 1 plan addressing the path forward for options of deactivation and decommissioning.
- Specified end points conditions to be achieved as drivers for project management for facility deactivation prior to turnover to DOE-EM. Addressed structures, systems, components and sources.
- Validating that end points have been achieved.