



Paul D. Armstrong
Operations Manager

EDUCATION

Cam Tech School of Construction – General Contractor (2005)
Hillsborough Community College- AABC 2004 (Building Construction)
Saint Mary's College 1983-1986: Business Administration
Four Rivers Technical School 1982-1983: Majored in Process Technology
Lewis and Clark Technical School 1976: Majored in Process Technology

TRAINING

Loss Prevention System (LPS) Training Certification May 2004
30 Hr OSHA Outreach Program for Construction Industry 2003
Fernando Rodriguez & Associates, Puerto Rico, 1999: EPA/AHERA Certified Asbestos inspector.
University of North Florida, 1990: Hazardous Waste Site Supervisor- Certificate
OSHA 40 Hr Hazardous Trained, 1989

HISTORY

2007- Present	Current Environmental Solutions, Operations Manager
2002-2007	Handex Consulting & Remediation, Southeast, Construction Manager & General Contractor
1996-2002	Terra Vac Southeast & Caribbean Operations Group, Operations Manager
1990-1996	Terra Vac International Operations, Field Supervisor
1987-1990	Terra Vac Southeast, Remediation Specialist
1986-1987	Colds Pump & Machinery, Plant Manager
1975-1986	Nash Engineering, Sr. Technical Representative

RELAVENT EXPERIENCE

Over twenty years experience in remedial system construction, investigations, design, operations, project management, and client relations. Currently, Operations Manager for a multi-million dollar ERH system located in the mid-west with over 400 electrodes for the first two phases of work. Previous projects involve Florida State contracting for the Petroleum Cleanup Program. Managed over 50 construction projects with Florida state contracts with approximate value of \$10 mil. Managed over 100 projects in environmental construction, source removals, assessments, remediation services, and auto lift removals. Previous projects have involved evaluation and application of traditional and innovative remediation technologies, including in-situ chemical oxidation treatment, air sparge, dual vacuum extraction, Electrical Resistance Heating (ERH), and Six-Phase Heating (SPH).

Previously, the Florida state qualifier (general contractor) for former company's construction business and responsible for all construction activities statewide and the senior project manager for the construction of remedial systems throughout the southeast and the largest remedial construction project for the Florida DEP Pre-Approval Program.

Operations Manager/ Sr. Project Manager for the largest ERH remediation system design, construction and operation in history for a private industrial client with TCE as containment of concern. Responsible for the installation of the 400 electrode system with multi-year construction & operational phases. Planned the construction logistics, managed subcontractors, equipment purchases, and personnel for the project. Direct responsibilities for project planning, budget management, and client management.

Operations Manager/ Sr. Project Manager for the ERH remediation system design, construction and operation of a former gasoline station site in Northern Florida under the auspices of the FL UST Program. Responsible for the "all-subgrade" installation of the electrode and vent system. Planned the construction logistics, managed subcontractors, equipment purchases, and personnel for the project. Direct responsibilities for project planning, budget management, and client management.

Technical Operations Supervisor for the large ERH system operation at Hunter Army Air Field base. Provided daily operational assistance to the Project Manager. Supervised the field installation of electrodes, extraction vents, ERH and process equipment. Performed routine system performance adjustments and maintenance. This ERH system was successful in recovering over 50,000 lbs of a combined BTEX/Jet Fuel LNAPL from soil and groundwater within 8 weeks.

Project Manager for the largest remediation system construction in the FL Pre-Approval Programs. Responsible for the installation of 400 wells air sparge & vent system with a 1-year construction phase. Negotiated the contract with the State with a budget for construction of \$2.7 million. Planned the budget, logistics, equipment purchase, and personnel for the project. Direct responsibilities for project planning, budget management, and client management.

Project Manager for a numerous remediation system installations in the FL Pre-Approval Programs. Remedial systems include air sparge & vent with 12 to 100 wells and source removals. Negotiated the contract with the State with a budget for construction. Planned the budget, logistics, equipment purchase, and personnel for the project. Direct responsibilities for project planning, budget management, and client management.

Project Manager for a large source removal project at St Mark Refinery, St Marks, FL. Supervised the excavation project to remove 4500 tons of petroleum impacted soil in 6 weeks. Planned the budget, logistics, equipment, and personnel for the project. Responsible for development of final report. Direct responsibility for project planning, budget management, and client management.

Project Manager for a direct chemical oxidation project at Prudhoe Bay, Alaska. Performed pilot test on diesel fuel soil pile with soil concentration greater than 1000 ppm. Supervised the onsite pilot test and achieved a 50% reduction in diesel impact in a 5 day test. Planned the logistics, equipment, and personnel for the project. Responsible for development of final report and developing second phase of remediation. Direct responsibility for projects planning, budget management, and onsite manager.

Project Manager for the subsurface remediation at an industrial facility in Puerto Rico. The site was impacted by #6 fuel oil with 2 feet of free product. The project included the installation of 20 dual soil vapor extraction (DVE) and 50 chemical oxidation injection points. The wells were connected to several manifolds that lead to three separate remedial systems, including recovered groundwater, vapor phase recovery, and recovered free product. In addition to subsurface remediation, managed all the asbestos abatement in a the 100,000 sf building, including characterization and close-out. The site was closed in February 2000 by approval of the local regulatory agency by a combination of risk-based and groundwater and soil clean up goals achieved. Responsible for projects planning, budget management and onsite operations. The site is now a shopping mall.

Project Manager for the subsurface remediation at major oil service station. Managed the design, construction, and operation of the treatment system resulting in the cleanup of the site over a three-year period. The systems included over 19 dual-phase extraction wells. The following processes treated extracted groundwater: oil/water separation, filtration, and liquid phase carbon adsorption. Treated groundwater was discharged to onsite infiltration gallery. Extracted vapors were treated with by direct dispersion. Responsible for project planning, budget management and system operations.

Project Manager for numerous Phase I, II, and III site assessments in Puerto Rico. Supervised the general process, client relationship, and responsible for the local staff achieving client satisfaction. Responsible for project planning, budget management and process development.

Project Manager for automotive hydraulic lift removal project in various cities in Puerto Rico. Develop the closure plans, H & S plans and gain approval from local regulatory agency to proceed. Responsible for the final closure report and obtaining final regulatory agency closure with no further action required. Direct responsibility for project planning, budget management, client satisfaction, client relationship, client liaison with regulatory agency, and site manager.

Project Manager for the subsurface investigation at a major oil refinery in Puerto Rico. Accountable for the onsite crew installation of over 400 Geoprobe soil borings. Provide detailed reporting on soil conditions and summary of investigative procedures. Direct responsibilities for project planning, budget management, client satisfaction, client relationship, and site manager.

Project Manager for monthly ammonia monitoring program at a major pharmaceutical manufacture including monthly reporting and budgetary control.

Purchasing Manager and Construction Supervisor for a large-scale SVE system installed as an emergency response in France. Onsite construction supervisor for the installation of the system. Responsible for the training the French technicians for efficient operations. Provided onsite system technical advisor role. Accountable for achieving cleanup goal deadline, which was achieved ahead of schedule. Direct responsibilities for project planning, budget management, client satisfaction, client relationship, and onsite manager.

Construction and Operations Manager for 4 SVE projects at electronic manufacturing plants in Japan. Remediation systems were designed to recover free phase TCE from impacted groundwater and soil. Supervised Japanese subcontractor construction firms during installations of systems. Responsible for training Japanese technicians and engineers to operate systems. Responsible for overseas inventory and purchasing. Produced O & M manuals for the projects. Daily coordination with Japanese clients during all phases of construction and operations to ensure client satisfaction. Direct responsibility for project planning, budget development and management, client satisfaction, client relationship, and onsite manager.

Construction and Operations Manager for 2 emergency response projects in Chavanay and LaVoulte France after BTEX Railroad cars derailed, setting the towns ablaze. Mobilized vacuum extraction equipment, catalytic oxidizers and other process equipment and crews from the USA within 24 hours and commenced recovery of the spilled gasoline within 48 hours while the fire departments were still battling the blazes. The emergency response efforts resulted in the clean-up of thousands of kilos of BTEX and effectively mitigated any migration of contaminants into the aquifer or surrounding areas.

PROFESSIONAL AFFILIATIONS

Certified General Contractor- Florida License # CGC1511522