# **Bruce L. Bruso, Principal**

#### **Fields of Competence**

Occupational Health and Safety Certified Instructor Project management (International and Domestic) Site remediation design and implementation Corporate level responsibility for compliance and interface Innovative technology development Business development (International and Domestic)

## **Experience Summary**

More than 12 years of international and domestic professional experience providing site remediation and assessment services. Performed project management during feasibility study, design phase, and construction phase on numerous project sites ranging from heavy industrial facilities, water and sewer treatment plants, sludge lagoons, power plants, storage tank facilities, military bases and landfills. Project management design phase services included remedial technology development and evaluation, professional testimony, field chemical applications, occupational health and safety compliance training of over 3,000 individuals, and earthwork and compaction requirements. Project management construction phase services included providing field recommendations in a timely manner to reduce potential delays in construction schedules, and documenting and recording observation and testing services. Treatability study experience ranged from leading physical stabilization programs on highly organic contaminated soils and heavy metal soils to development of field pilot programs.

### Credentials

National Fire Academy - Hazardous Materials Response Course work completed towards B.S., Environmental Engineering USEPA Hazardous Materials Team Certification Certified Hazardous Materials Supervisor -Harrisburg Community College, 1988 Instructor - OSHA 1910.120 (q) WTTI - Metallurgy, 1984 National Fire Academy - Certified Fire Fighter I

#### **Professional Affiliation**

National Fire Protection

#### **Key Projects**

Provided project design and management on the first Pennsylvania State Superfund **Emergency Action project.** Managed this interceptor trench, stabilization of soils and overpacking of 150 leaking drums project from development of the field program and conceptual design through the project design and construction phase. Worked directly with the project team from the PADEP and the Governor's office so immediate threats to groundwater were stabilized in 48 hours.

Provided Occupational Health & Safety as well as remediation expertise on a Due Diligence / Acquisition at a German owned speciality steel manufacturing facility being purchased in Pennsylvania. The assessment included definition of the occupational health and safety procedures, facility environmental setting, site historical background. environmental conditions, and a variety of remediation scenarios and cost estimates based on state and federal regulatory requirements. This information was utilized in the development of final purchase figures.

Provided design and implementation of an innovative soil treatment technology for a CERCLA project (REGION 3) at an existing Fortune 500 Communications manufacturer. The technology was implemented and completed the target treatment objective under the State of New York (NYSDEC's) toughest soil treatment standard in the US. The site contained mixed contaminates including hazardous levels of metals and chlorinated VOC's.

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Pennsylvania Hazardous Materials Technicians Assoc.

#### **Key Projects (continued)**

Provided project management for a Fortune 50 Automotive Component manufacturer in (Region 5). The client won an environmental award as a result of the use of the innovative soil treatment technology. All soils and concrete discovered were treated on site thereby eliminating off-site disposal. Remedial Action Work was performed under the voluntary cleanup program in conjunction with IDEM (State of Indiana).

Provided PRP support on a feasibility study (FS) at an industrial facility's previous disposal area in the center of Metropolitan Milwaukee. Coordinated with the Wisconsin Department of Natural Resources (WDNR) to develop and implement the CBA MITU soil treatment technology. This project is the highest publicly funded State Superfund cleanup in the history of the State of Wisconsin. The site contains a mixture of significant quantities of organic and inorganic compounds in soil to a depth of 45 feet BGS. Developed Remedial Action Plan that considered a unique in-place treatment remedy that allowed for a 60% cost savings to the State. As such, remediation costs were reduced by \$6,000,000.

Developed an innovative trenching design application for various vertical barrier systems and groundwater control at a Military Installation in Virginia. The evaluation entailed developing a detailed cost analysis and determining constructability for the options considered.

Managed and participated in a treatability study program for In-SITU treatment of PCB contaminated soils and sediment on a Superfund project in the Mid-west. The project materials were contaminated with high concentrations of 1242 Aroclor. The treatability study provided a 68% reduction with the first application. The results are being further evaluated for full-scale implementation in combination with the MITU technology.

Provided innovative chemical response training and facilities spill management evaluation for seven years running at various Military Installations. Continue to provide custom Occupational Health & Safety training to the US Army and US Air Force. Additional training includes crisis management training to high level ranking officers for disaster preparation.