OHI Engineering, Inc.
Engineers and Environmental Scientists

James R. Borrebach, PE, LSP
Principal

Education

Worcester Polytechnic Institute, 1982, B.S. Civil Engineering

Certifications

Certified OSHA 40 Hour Hazardous Waste Site Operations (CFR 1910.120)
Certified OSHA 24 Hour Emergency Site Specialist (CFR 1910.120)
Certified 8 Hour Site Supervisor (CFR 1910.120)

Licensure

Registered Professional Engineer in Massachusetts, Vermont, and Rhode Island
Licensed Site Professional (LSP) in Massachusetts

Qualifications

Mr. Borrebach has over thirty years of professional experience in civil and environmental engineering and science and is the President and Founder of OHI Engineering, Inc. His expertise includes: environmental site assessments; hazardous waste site investigations; site remediation and cleanup design, permitting and installation; environmental monitoring and management of Underground Storage Tank removals; hydrogeologic investigations and permit filings under numerous state and local development and environmental statutes. His expertise also includes: engineering site design for residential, commercial and industrial projects, storm water control system evaluation and design, design of retaining walls, sewer systems and water supply systems. He is a Licensed Site Professional in Massachusetts, and a registered Professional Engineer in Massachusetts and Rhode Island.

He has served as the Licensed Site Professional (LSP) of record for numerous response situations where the release of oil and hazardous materials required the implementation of sound response actions in compliance with the Massachusetts Contingency Plan (MCP). The releases included: releases of gasoline and fuel oil from underground and above ground storage tanks at commercial and industrial facilities, power plants and residences; historical releases of oil and hazardous materials (OHM) at industrial, commercial, and petroleum facilities; accidental spills of petroleum and industrial chemicals; and, releases of industrial chemicals due to fire. Mr. Borrebach has served as the Public Participation Plan coordinator for “PIP” sites in Massachusetts and consulted with municipal agencies for public communication regarding a “PIP” Site. He is familiar with the requirements of the Massachusetts Wetlands Protection Act and has conducted response actions at several project sites that required authorization of local Conservation Commissions. He has extensive experience extending over his entire career in coordinating, attending and presenting at public meetings and hearings

Mr. Borrebach has designed and implemented site clean ups involving: excavation of contaminated soil; soil vapor extraction; on-site soil treatment using thermal desorption,

asphalt encapsulation, and bioremediation; groundwater pump and treat systems; in-situ chemical oxidation, and dual phase extraction.

Mr. Borrebach has been involved in providing environmental reviews, assessments, remediation feasibility studies and closure reports for Underground Storage Tank removal projects at gasoline stations, industrial facilities, manufacturing companies and residences. His responsibilities included verifying soil and groundwater conditions through field screening techniques, developing and implementing remedial measures, and submittal of closure reports while ensuring compliance with local, state and federal regulations, and in coordination with owners, permitting agencies and contractors.

He has prepared hundreds of environmental site assessments in Massachusetts, Rhode Island, Connecticut, New York and Maine in compliance with ASTM standards or client specifications. The projects were completed for private parties, public entities and, small and large lending institutions.

Project Experience

Industrial Chlorinated Solvent Release
Mr. Borrebach was responsible for the assessment of an industrial property where high concentrations of chlorinated solvents were discovered. He designed and implemented a remedial system pilot test and installed a dual phase extraction system for the simultaneous removal of soil vapor and groundwater. The design resulted in a groundwater extraction rate that was increased by a factor of ten over that achieved by a typical groundwater extraction well. The design included retrofitting existing monitoring wells to serve as extraction wells thereby resulting in a significant cost savings for system installation. Mr. Borrebach prepared the Release Abatement Measure Plan (RAM Plan), Phase 1 Initial Site Investigation Report, and Tier Classification submittals for the Site in compliance with the Massachusetts Contingency Plan. Groundwater analyses indicated a reduction in dissolved Chlorinated solvents of over ninety (90) percent after the first three months of system operation.

PCB Transformer Oil Release
Mr. Borrebach was the Licensed Site Professional of Record for a release of approximately 600 gallons of PCB-containing transformer oil that occurred during decommissioning of an industrial site. The oil was released in close proximity to a major river in Massachusetts. Shortly after release, a large sheen was noted on the river, and immediate response actions were undertaken to place booms in the river to contain the sheen. The released oil moved onto a nearby beach and impacted the beach and the beach grasses. The release also affected soil in the vicinity of the vault system, sheet piling and piles along the riverfront. Another significant concern was the presence of shell fishing beds further downstream from the release. Assessment and remediation of the release included soil excavation, cleaning and removal of the vault system, and remediation of the affected beachfront. A Site Specific Risk Assessment was prepared as impacts extended to surface water and sediments. The Risk Assessment showed that the remediation was successful in achieving a condition of no significant risk to human health, welfare, safety and the environment. Closure reports were prepared and submitted to the EPA and to the Massachusetts DEP. Work at the site was regulated by both the USEPA under TOSCA and the Massachusetts Department of Environmental Protection.

Residential Heating Oil Release
Mr. Borrebach was the Licensed Site Professional of record for a release of over two hundred gallons of residential heating oil at an ocean front residence in Osterville, Massachusetts. Soils, both outside and underneath the residence were impacted by the release. Mr. Borrebach was responsible for developing a structural shoring system to support the three story residence while excavation was conducted underneath the foundation of the residence. An area of the foundation of over thirty linear feet was exposed during the excavation work with no impact to the stability of the structure. Localized groundwater extraction and treatment was also conducted. Remaining oil concentrations were reduced to the point where a Class A-2 Response Action Outcome was achieved.

Solvent Releases at Dry Cleaners
Mr. Borrebach is the LSP-of-record for several releases of tetrachloroethene (PCE or PERC) at dry cleaning facilities in Massachusetts. The releases have impacted residential homes, day care facilities, schools, churches, and commercial and industrial facilities. The releases have affected soil, ground water, surface water, and indoor air. Remedial measures implemented to address the releases have included soil excavation & disposal, ground water treatment, on-site chemical oxidation, sub slab depressurization systems, soil vapor extraction systems, and, in some cases, were required to abate imminent Hazards. Site-specific Risk Assessments have been prepared to develop clean up requirements.