

## Resumé:

### Andrew K. Patz, CHMM

*Over the past 14 years, Mr. Patz has been working with private and public sector clients to manage environmental risk associated with facility operations, mergers, acquisitions, and divestitures. He has also been responsible for the design and implementation of environmental compliance and remediation programs. He has managed due diligence assessments for acquisitions and divestitures and developed remedial cost and risk probability models that can be modified to account for portfolio and site specific environmental liabilities for properties in North and South America, Europe, and Asia.*

*Additionally, he has managed and participated in projects from phased site assessments through site closure under RCRA, CERCLA, various underground storage tank (UST), and voluntary action programs in California, Delaware, Florida, Georgia, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, North Carolina, Pennsylvania, Ohio, Rhode Island, South Carolina, Tennessee, Texas, Wisconsin, and West Virginia for airlines, chemical manufacturers, petroleum refineries, the rail industry, and steel and aluminum manufacturers.*

*Mr. Patz also has extensive experience with large-scale site investigation, remediation, and construction projects involving hazardous wastes. His specific experience encompasses the design of site investigation and remediation, cost estimation, project planning and budgetary control, subcontractor procurement and oversight, the design and implementation of project health and safety plans, reporting, and interaction/negotiations with federal, state, and local regulatory agencies.*

*He has managed construction and operations and maintenance of several remediation systems, such as soil vapor extraction, air sparging, dual phase extraction, chemical oxidation, and various ground water treatment systems; including groundwater pump and treat systems utilizing activated carbon, chemical precipitation, and UV treatment methodologies.*

### Education

- B.S., Environmental Science /Geology, Slippery Rock University, 1997
- Industrial Wastewater Treatment Training, Rutgers College of Engineering, 1998
- Microbiology of Activated Sludge, Rutgers University, 1999
- M.S., Environmental Science and Management, Duquesne University, 2005

### Professional Affiliations

- Past President Three Rivers Chapter of the Academy of Certified Hazardous Materials Managers
- Board of Director Southwestern Pennsylvania Household Hazardous Waste Taskforce

### Certification and Training

- Certified Hazardous Materials Manager

- West Virginia Licensed Remediation Specialist
- Certified New Jersey N2 Industrial Wastewater Plant Operator
- OSHA 40-hour HAZWOPER 29-CFR 1910.120 Certified

### Fields of Competence

- Environmental liability cost estimation
- Financial modeling including Securities and Exchange Commission Reporting
- Risk minimization and transfer techniques
- Site investigation and remediation
- Merger, Acquisition, and Divestiture Services
- Brownfields remediation and redevelopment
- Regulatory analysis and compliance
- Construction management
- Solid waste management

## ANDREW K. PATZ (continued)

- Water and wastewater treatment and compliance

### Key Projects

Mr. Patz has managed and participated in due diligence efforts on over 500 sites throughout the world including China, Europe, and the United States. The individual deals that have ranged from \$40 million to over \$3.5 billion and have included multi-national chemical and specialty metal companies.

Coordinated and participated in the high-level due diligence support of a Fortune 500 chemical company as part of a \$3.5 billion acquisition. Mr. Patz identified and quantified 3<sup>rd</sup> party and Natural Resource Damage liabilities and acted as an extension of the client's management team. Responsibilities included developing regular presentations and summaries for senior management and board meetings. Following the announcement of the merger agreement, Mr. Patz assisted with the SEC 10K reporting integration.

Managed and participated in the due diligence of a \$450 million dollar multi-national chemical business. The effort required an accelerated schedule which included coordinated site visits at facilities in eight countries including the U.S. Utilizing EHS Support's remedial cost and risk probability model, estimated remedial, regulatory compliance, capital, and integration costs associated with the acquisition. He worked with senior management and in house counsel to address the liabilities as a purchase price reduction and complex indemnity and escrow package. The use of the liability model provided fast and accurate liability estimates which ensured environmental issues did not impact or slow down the deal process. Post close, Mr. Patz worked as an extension of the client's management team to assist in the integration of the environmental programs at all of the facilities with particular focus on the

Chinese, Russian, and Brazilian operations.

Project Manager for investigation and remediation of a multimillion-dollar, 500-acre former explosive manufacturing facility under auspices of PADEP Land Recycling and Remediation Standards (ACT 2). Identified and investigated 45 areas of concern across the site. Source areas varied from dump and disposal sites to areas of known nitroglycerin releases. Due to danger from hazardous and reactive materials, investigation of several areas required remote drilling, which utilized remotely operated robotic drilling systems to complete the subsurface investigation. Developed innovative remedial strategies to cost-effectively mitigate any risk to human health or the environment, including negotiation with the state regulatory agency to significantly reduce the number of areas investigated and volume of samples collected site wide, based on historical research and industry knowledge.

Completed wastewater treatment system efficiency audits for several clients in the metals and carbon black industries. Recommended design and operational changes to improve efficiency of treatment systems and reduce utility and operational costs.

Mr. Patz served as Project Manager for \$1-million site characterization project conducted as part of the UAL Flight 93 airline crash in Southwestern Pennsylvania on September 11, 2001. Work was conducted under the auspices of PADEP ACT 2 program. Characterization included investigation of surface soils and ground water beneath site to assess if any Constituents of Potential Concern associated with Jet A fuel were present above PADEP Statewide Health Standards. Managed field technicians, subcontractors, and interaction with regulatory agencies and the community. This project was successfully completed under a highly aggressive schedule.

## ANDREW K. PATZ (continued)

Project Manager for an LNAPL (pesticide and number 6 fuel oil) delineation and recovery project at a former pesticide manufacturing facility in New Jersey. The project consisted of well installation, ground water monitoring, LNAPL monitoring and removal, groundwater pump and treat, and re-injection of the treated water into an non-use aquifer. Responsible for reporting, and negotiating with New Jersey Department of Environmental Protection (NJDEP), and interaction with adjacent property owners, which included a small regional airport. Upon completion of the free product removal effort, assisted in the implementation of an Electro Chemical Geo-Oxidation (ECGO) remediation system at the site.

Project Manager for investigation and regulatory closure of former Jet A fuel storage facility for major airline at the Canton Akron Airport. The site historically contained leaking USTs. Activities included site investigation, regulatory negotiations, and a comprehensive review of historical reports and files. The investigation included vertical and horizontal delineation of free product. The neighboring facilities had historically operated similar Jet A operations. The workplan was designed to identify (forensically) the source of the free product on the site. The approach confirmed that the free product was from an off-site source and eliminated our client's liability.

Managed the operation, maintenance, performance sampling, and regulatory reporting associated with a soil vapor extraction system at a large automotive manufacturer in central Ohio. The soil vapor extraction system reduced the concentration of VOC contamination below regulatory limits ahead of the projected schedule, saving the client thousands of dollars in operational expenses. The site also received a release of environmental liability.