Yilmaz ARHAN, Ph.D. Vice President

ACADEMIC BACKGROUND

1979: Rutgers College, New Brunswick, NJ, B.A. Chemistry

1983: Rutgers University, New Brunswick, NJ, M.S. Biochemical Engineering

1994: Rutgers University, New Brunswick, NJ, Ph.D. Environmental Science

SHORT COURSES

Atomic Spectroscopy, Infrared Spectroscopy, Industrial Hygiene, Remediation of Hazardous Waste Sites, Underground Storage Tank Management, Fundamentals of Ground Water Contamination, Ground Water Monitoring, Environmental Response and Hazardous Waste Operations, Community and Worker Right-to-Know, Asbestos Survey and Hazard Assessment, Inspecting Buildings for Asbestos Containing Materials, Managing Asbestos in Buildings, Operation and Maintenance of Wastewater Treatment Plants, Radon Measurement, Indoor Air Quality, Stormwater Management, Hazardous Waste Management, Environmental Management (BS7750, EMAS/ISO14000)

PROFESSIONAL EXPERIENCE

2000 to present: New Jersey Institute of Technology, Newark, New Jersey, Adjunct Professor 1999 to present: Sor Testing Laboratories, Inc. Cedar Grove, New Jersey and S&S Environmental Sciences, Inc., Vice President

1995 to 1999: Environmental Engineering Department of Gebze Institute of Technology, Kocaeli, Turkey, Successively Visiting Lecturer and Associate Professor

1995 to 1997: PAK-BIOMER BIOTECHNOLOGY RESEARCH CENTER in Kocaeli, Turkey, Environmental Scientist and Environmental Coordinator for PAKMAYA, Istanbul, Turkey

1987 to 1995: Shimel and Sor Testing Laboratories, Inc. and S&S Environmental Sciences, Inc., Cedar Grove, New Jersey, Director of Chemical and Environmental Services and Successively General Manager and Vice President

1987: Rutgers Enviro Sciences, Inc., East Brunswick, New Jersey, Director of Technical Operations 1984 to 1987: NJ Department of Environmental Protection, Trenton, New Jersey, Successively Engineer Trainee, Assistant Environmental Engineer, Senior Environmental Engineer, Environmental Scientist, and Research Scientist

1980 to 1983: Shimel and Sor Testing Laboratories, Inc., East Hanover, New Jersey, Analytical Chemist/Environmental Specialist

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REPRESENTATIVE PROJECT EXPERIENCE

- Start-up and management of a State-certified environmental testing laboratory.
- Participation in NJDEP and U.S. EPA quality assurance programs.
- Sampling and physical, chemical, and/or microbiological analysis of drinking water, wastewater, ground water, air, soil, sludge, waste, sediments, and construction materials.
- Technical assistance in hazardous and non-hazardous waste management.
- Classification of industrial and municipal wastes and advisement in treatment, storage, recycling, waste reduction, hazard reduction, and disposal.
- Review of hazardous waste delisting petitions.
- Case Manager/Technical Coordinator with the NJDEP, with duties involving the assessment of industrial facilities subject to New Jersey's Industrial Site Recovery Act (ISRA)(formerly Environmental Cleanup Responsibility Act (ECRA)). Duties included site inspection, determining compliance with federal, state, and local environmental laws and regulations, and coordination of sampling and cleanup activities.
- Review of Sampling Plans and Cleanup Plans and project oversight to ensure that proper methods are used in evaluation of industrial sites and that appropriate corrective measures are implemented to remediate the hazardous conditions (contaminated soils, sediments, surface water, ground water, building interiors).
- Ensuring project quality assurance and quality control. Communication, coordination and/or negotiation with industry representatives, consultants, attorneys and other regulatory agencies such as U.S. EPA.
- Asbestos inspections and preparation of management plans, including for projects subject to AHERA. Clients included public and private schools, universities and colleges, office buildings, hospitals, private residences, and industrial buildings.
- Sampling and testing of bulk materials for asbestos.
- Hazard Assessments.
- Preparation and implementation of asbestos abatement plans in accordance with the federal AHERA regulations, including project supervision and air monitoring.
- Consulting in underground storage tank testing, removal and replacement.
- Consulting in remediation of leaks and spills from tanks, and consulting in leak detection and leak prevention methods.
- Lead-based Paint Surveys and Hazard Assessment.
- Abatement Design and Monitoring.

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REPRESENTATIVE PROJECT EXPERIENCE continued ...

- Consulting in indoor and outdoor air quality management. Supervision and implementation of indoor and outdoor air quality surveys and studies (investigation of Sick Building Syndrome cases, mold assessment, and occupational exposure monitoring, including air sampling and testing). Projects included school buildings, office buildings, industrial buildings, quarries, asphalt and concrete plants.
- Indoor and outdoor noise studies and consulting.
- Consulting in Community and Worker Right-to-Know compliance. Supervision of hazardous substance surveys, including labelling of containers, and preparation of reports.
- Preparation of Material Safety Data Sheets (MSDS).
- Indoor and soil radon surveys and assessments. Projects included school buildings, office buildings, and private residences. Consulting in the abatement of elevated indoor radon gas.
- Preparation of NJPDES Discharge to Surface Water and Discharge of Ground Water permit applications. NJPDES Monitoring of surface and ground water discharges including sampling, testing and reporting.
- Ground water quality studies, including monitoring well installation and ground water sampling and testing.
- Supervision of engineers, geologists, scientists, and technicians.
- Management of multidisciplinary environmental projects (ISRA projects, environmental assessments, assessment and removal of underground tanks, remediation of contaminated soils and ground water).
- Proposal and contract preparation.
- Liaison with clients, vendors, subcontractors, and regulatory agencies.
- Preparation and implementation of environmental sampling and cleanup plans.
- Perform site inspections.
- Ensure overall quality control for the firm's projects.
- Training of the staff in environmental sampling, investigation and remediation procedures.
- Preparation and implementation of site-specific Health and Safety Plans.
- As a member of the research staff at Pak-Biomer (a unit of PAKMAYA who is an international manufacturer and exporter of baker's yeast (1000 employees)), design and supervise research in wastewater treatment. As the environmental projects and compliance coordinator, provide technical assistance in other environmental matters such as air pollution measurement and control, solid waste management, wastewater reclamation and reuse, and sludge composting. Participate in environmental litigation, and serve as liaison with local and national environmental regulatory agencies.

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REPRESENTATIVE PROJECT EXPERIENCE continued ...

- Preparation of an Environmental Management and Action Plan for the Romanian plant in accordance with the British BS 7750 and draft ISO 14000 specifications (required as a prerequisite to approval of loan from the European Bank for Reconstruction and Development (EBRD).
- Teaching of undergraduate and graduate level courses in environmental science and technology, including biological wastewater treatment and hazardous waste management.
- Counseling of graduate school students and act as advisor on graduate level research (Master's and Doctorate).
- Conduct research in wastewater treatment and provide consulting in hazardous waste management.

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