46 Peninsula Center Drive, Suite E 349 Rolling Hills Estates, California 90274-3562 (310) 370-8370 (310) 370-2474 FAX www.hygienetech.com

DARREN G. BARR, CIH, CSP

Industrial Hygienist with Bachelor of Science degrees in both Environmental Health and Industrial Hygiene. Experienced in the areas of industrial hygiene, safety, chemical hazard assessment, microbial growth assessment, noise evaluation and control, property hazard assessment, and indoor air quality. Professional responsibilities include identifying, evaluating and controlling stressors in varied occupational and domestic environments.

EDUCATION AND TRAINING

- Bachelor of Science, Industrial Hygiene, Ohio University, Athens, Ohio, 2002
- Bachelor of Science, Environmental Health, Ohio University, Athens, Ohio, 2002
- Hazardous Waste Operations and Emergency Response Training pursuant to Title 29, Code of Federal Regulations, Part 1910, Section 120, HygieneTech, Torrance, California, 2007

CERTIFICATIONS

- Certified Industrial Hygienist, Comprehensive Practice, Board for Global EHS Credentialing (formerly the American Board of Industrial Hygiene),, Number 9565, 2008
- Certified Safety Professional, Board of Certified Safety Professionals, Number 22081, 2011

EXPERIENCE AND BACKGROUND

2006 - Present Hygiene Technologies International, Inc., Cleveland, Ohio

Industrial Hygiene Manager

Manage a staff of industrial hygienists that provide industrial hygiene and occupational safety services to both domestic and international clients in a variety of industries including manufacturing, aerospace, construction, building management, insurance, legal, environmental engineering, and utilities. Also provide and supervise industrial hygienists that perform indoor air quality studies in non-industrial environments, such as office buildings, health care facilities, personal residences, and schools. Conduct and supervise surveys designed to identify employee exposure potentials to chemical substances such as fibrous and nuisance dusts, volatile organic compounds, inorganic acids, aldehydes, lead and other metals, carbon monoxide and carbon dioxide, bioaerosols (bacteria and fungi) and allergens; as well as physical agents such as noise, air temperature and relative humidity, ionizing and non-ionizing radiation, vibration, and illumination.

Evaluate exposure data based on health hazard studies and provide interpretations of exposures in light of OSHA, EPA, ACGIH, and other environmental and occupational health regulations and guidelines

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EXPERIENCE AND BACKGROUND (CONTINUED)

2006 - Present Hygiene Technologies International, Inc., Cleveland, Ohio

(Continued): Industrial Hygiene Manager

including international occupational exposure limits. Recommend courses of action to control exposures and reduce the potential for injury, illness, and/or property loss. Such controls typically involve the use of local exhaust ventilation, work practice modification, and personal protective equipment in order to reduce exposure potentials. Conduct ventilation surveys involving laboratory hoods, paint spray booths, and other local and general ventilation systems.

Conduct and supervise fungal and bacterial growth assessment and exposure surveys, primarily in buildings that have had known water intrusion events, such as those caused by window or roof leaks, groundwater seepage, plumbing failures, or sewage spills. Use direct-reading instruments to determine moisture content data in varying building materials. Collect surface samples from building materials to assess fungal and bacterial growth potentials, and air samples to determine concentrations of both viable and nonviable fungi, and viable bacteria. Identify microbes and assess health hazard potentials, identify the sources of water that are potentially attributable to the biological growth, develop abatement strategies, and establish appropriate engineering and personal protective equipment controls during any anticipated remediation work. Provide project design and general consulting during abatement projects, and perform site surveillance, air monitoring, and surface sampling on such sites.

Experienced in the use of direct-reading monitoring equipment such as combustible gas and oxygen indicators, photoionization detectors, hydrogen sulfide monitors, heat stress monitors, and colorimetric gas detector tube samplers; as well as, personal monitoring equipment such as sampling pumps and noise dosimeters. Prepare industrial hygiene and environmental air monitoring reports, as well as peer-review other such documents for technical accuracy and completeness. Generate survey proposals with detailed sampling strategies and price quoting.

2002 - 2006 Industrial Commission of Arizona (Arizona OSHA), Phoenix, Arizona <u>State Industrial Hygienist</u>

Worked as a compliance officer performing health and safety inspections throughout the state of Arizona to enforce OSHA standards. Performed industrial hygiene surveys to determine potential occupational health exposure issues which would often require the collection of air samples including asbestos, lead, silica, fungi, and metals, to be submitted to an analytical laboratory, as well as the operation of a variety of direct-reading equipment for real-time detection of potential hazards. Conducted comprehensive safety audits for both general industry and the construction industry in which all areas of employee safety were assessed including: required employer postings, fire protection, fall protection, lockout/tagout, forklift safety, electrical safety, housekeeping, machine guarding, and personal protective equipment. Gained a detailed understanding of health and safety programs including Hazard Communication, Hazard Assessment, Injury and Illness Recordkeeping, Bloodborne Pathogens, Confined Spaces,

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EXPERIENCE AND BACKGROUND (CONTINUED)

2002 - 2006 Industrial Commission of Arizona (Arizona OSHA), Phoenix, Arizona

Respiratory Protection, and Hearing Conservation. Effectively communicated, both written and verbally, complex health and safety standards to employers, employees, and the general public. Defended case files before an administrative law judge.

Summer 2002 Envisage Environmental Inc., Brecksville, Ohio

Consultant

Worked as an industrial hygienist conducting indoor air and noise monitoring to determine compliance with OSHA standards and guidelines for local businesses. Developed safety programs to assist companies with compliance efforts. Performed stack tests to monitor emissions and assist companies in meeting pre-approved programs and permits to meet environmental regulations. Performed routine environmental site assessments and conducted safety training.

Summer 2001 WASTREN Inc., Piketon, Ohio

Industrial Hygiene Intern

Worked to maintain a safe work environment for employees dealing with hazardous waste produced in the process of uranium enrichment. Calibrated instruments, monitored different constituents in workers' breathing zones, performed heat stress monitoring among other analytical tests, and prepared health and safety information to be given to employees.

Summer 2000 Cuyahoga County Board of Health, Cleveland, Ohio

Environmental Health Technician

Worked with Vector Control Program. Acquired an Ohio Department of Agriculture public operator's license for use of pesticides and educated community on preventing mosquito activity. Applied various methods of pest control for complaints received throughout the county. Worked with the CDC collecting mosquito larvae to be later tested for pesticide resistance and population studies.

PROFESSIONAL AFFILIATIONS

American Industrial Hygiene Association – National and Northeast Ohio Local Section