

RESUME – ELIZABETH M. FRISCH

EMPLOYMENT HISTORY:

- Development Director and Senior Trainer, A Nurtured World, Inc., 2004-Present
- President, Culture Technologies, Inc., 2002-Present
- EHSMS Assessor, ERM-CVS, 2002 – 2004
- Senior Technical Program Specialist and Program Administrator, Texas Natural Resource Conservation Commission 1999- 2002
- EHS Specialist and Project Manager with Portland and Texas companies, 1992 - 1999

EDUCATION:

- Bachelor of Science in Chemical Engineering, Purdue University, West Lafayette, Indiana, 1992

EXPERIENCE GAINED:

Culture Technologies, Inc. (formerly William's EHS), August 2002 - Present

President

- Providing organizational behavior change through innovative training methods and auditing services which focus on compliance, pollution prevention, resource conservation, and risk/liability control.
- Managing EMS consulting practice which provides comprehensive environmental performance-based management system support to clients through a historically underutilized business (HUB) designation utilizing the independent contractor model.
- Providing auditing, training, and train-the-trainer services to industry and governments seeking to develop P2 performance-based EMS programs.

A Nurtured World, Inc., February 2004 - Present

EMS Project Manager and Trainer

- Working for a local non-profit founded on the principles of driving organizational and consumer behavior change through innovative training methods providing behavior-based training and auditing services which focus on compliance, pollution prevention, resource conservation, and risk/liability control.

ERM-CVS, Austin, Texas, November 2002 – May 2004

EHSMS Assessor

- Assisted in environmental, health, and safety certification assessment and training for companies to meet the requirements of ISO14001 or OSHAS18001 using the performance-based EMS certification approach.

Texas Natural Resource Conservation Commission, Austin, Texas, December 1999 – July 2002

Senior Technical Program Specialist and Program Administrator

- Environmental Management System (EMS) Program manager responsible for authoring the EMS rule package implementing House Bill 2997 affecting more than 500,000 regulated entities across the State of Texas, managing internal and external stakeholder groups on EMS, development of various EMS protocols, training division staff on the review of EMS, as well as routinely interfacing with commission upper management to brief and advise them on program implementation.
- Assistant to the Division Director of an innovative programs technical support group within the TNRCC responsible for assisting the director in division responsibilities and oversight and implementation of various pollution prevention and waste reduction programs.
- Legislative liaison responsible for monitoring and commenting on proposed legislation during the State of Texas Legislative sessions and advising upper management on impacts to the division.
- Rules/projects liaison responsible for reviewing, commenting, and managing TNRCC rule proposals affecting innovative programs and various industry, government, and private entities.

- Personnel Manager responsible for the supervision and evaluation of eleven (11) small business and local government assistance specialists located in five regions across the State of Texas.
- Technical lead responsible for the development and review of multimedia, industry-specific compliance assistance documents on TNRCC regulatory programs.
- Project Manager for air, water, and waste special projects in five industries and local governments. Responsible for the implementation and measurement of over fifty (50) projects.
- Advocate for small businesses and local governments during TNRCC rulemaking efforts to ensure business and government interests are represented in the rulemaking process.

ERM-Southwest, Inc., Austin, Texas, September 1998 – December 1999

EHS Project Manager

- Project manager responsible for comprehensive, multimedia, environmental, health, and safety (EHS), environmental management, and code compliance support of semiconductor, petrochemical, and other related industries.
- Additional responsibilities included client/employee EHS training programs, environmental management programs, new business/market development, operations streamlining, compliance assurance, and reputation/communication projects.
- Specific project experience includes EHS litigation support for industry; EHS auditing; Title V, PSD, NNSR and state air permitting; hazardous waste programs and permitting; wastewater program evaluation; control technology review; regulatory agency negotiations; safety program review; code compliance (UBC, UFC, UMC, and NEC), and EHS program development and implementation through the use of environmental management system (EMS) techniques.

Jacobs Engineering Group, Inc., Portland, Oregon, February 1997 – August 1998

EHS and Process Projects Manager, Technical Lead, and Process Engineer

- Technical Lead and Process Engineer responsible for design of support systems in semiconductor fabrication facilities including chemical delivery/distribution, waste collection/reclaim, chemical storage rooms, and tool exhaust systems.
- Responsible for the development and review of tool installation packages for wet etch, thin films, planar, and lithography areas of semiconductor facilities.
- Advocate for clientele with government agencies for any environmental, health, and safety design and permitting issues related to new construction projects and industrial facility modifications.
- Project Manager responsible for air permitting, regulatory agency negotiations, development of emissions estimation methods, control technology analyses, regulatory reporting, environmental tracking/management systems, and site selection.
- Facilitator responsible for completing code compliance analyses (building, fire, electrical and mechanical code), Failure Mode and Effect Analyses (FMEA), and Hazard and Operability Studies (HAZOP).

Zephyr Environmental Corporation, February 1995 - January 1997

Environmental Project Manager, Technical Lead, and Project Engineer; Austin, Texas

- Managed, supervised, and provided technical support for environmental projects in the semiconductor/microelectronics, chemical, oil and gas, printing, chrome plating, and hazardous waste recycling industries and developed regulatory tracking service to alert clientele of state and federal regulation and policy changes affecting specific sites and product groups.
- Prepared state and federal air permit applications in various states under the Title V operating permit, Prevention of Significant Deterioration (PSD), and Nonattainment New Source Review (NNSR) programs and provided comprehensive environmental, health, and safety (EHS) project and sub-contractor management to facilities involved in grassroots construction projects, including representing clientele at meetings with local politicians, city governments, and neighborhood organizations.
- Prepared and assisted in the implementation of various environmental compliance management programs at plant/site-level.

TRC Environmental Corporation, Austin, Texas, May 1992 - February 1995

Project Manager, Technical Lead, and Chemical Engineering Staff

- Obtained working knowledge of the petrochemical, natural gas processing, semiconductor/microelectronics, specialty chemicals, chrome products, carbon black, and ready mix/quarry/asphalt industries through responsibilities as project manager, personnel supervisor, and project engineer.
- Prepared project proposal and was awarded a \$500,000 project from SEMATECH to complete a comprehensive study of existing and experimental VOC abatement technologies. As Project Manager, provided main technical support for the project coordinating the efforts of 12 member companies which included: equipment performance characterization, process simulations, cost-of-ownership analyses, reliability analyses, and research on current pollution prevention practices applied to the semiconductor/microelectronics industries.
- Supported multiple nationwide operating permit programs for various industrial source groups. Projects included preparation of emission inventories, state-by-state operating permit program review, preparation of operating permits, and client training on various state and federal programs including enhanced monitoring, accidental release provisions, and MACT regulations.

DuPont/MK-Ferguson SIGMA Group, Cleveland, Ohio, Summer Intern, May 1989 - September 1991

Engineering Co-op Technician

- Analyzed plant designs for quality control and safety considerations. Checked and revised process flow diagrams. Responsible for sizing pumps and process lines and purchase of process equipment.
- Lead designer on projects for DuPont. Conducted final process checks on all process and instrumentation diagrams.
- Assisted in the coordination of a \$150,000,000 engineering project. Created departmental project file system, arranged meetings, information transmittal, and plant trips.

PUBLICATIONS:

Frisch, E., "Why EMS? Motivation for an New Regulatory Climate", *Various Industry, Military, and Government Organizations*, April 2001-July 2002.

Frisch, E., "Performance-based EMS", *Various Industry, Military, and Government Organizations*, August 2001-July 2002.

Frisch, E., "Risk Assessment and the TRRP program for Drycleaners", *Texas Natural Resource Conservation Commission*, TNRCC Annual Conference, May 2001.

Frisch, E., "Regulatory Compliance Requirements Affecting Paint Manufacture and Related Industries", *Southwest Paint Manufacturer Association*, Annual Conference, 2001.

Frisch, E., "Navigating the UBC, UFC, UMC and NEC – Tools to Enhance Code Compliance", *Semiconductor Safety Association*, Annual Conferences, April 2000 and April 2001.

Frisch, E., "Code Compliance for EHS Professionals in the Semiconductor Industry – UBC/UMC/UFC/NEC", *Semiconductor Safety Association*, Annual Conference, March 1999.

Frisch, E., "Specification and Evaluation of VOC Abatement Equipment in the Semiconductor Industry", *Semiconductor Fabtech*, 5th Edition, October 1996.

Frisch, E., "Operating Flexibility Under Texas Senate Bill 1126", presented to the Association of Professional Environmental Women (APEW), Austin, Texas, May 1996.

Frisch, E., "Specification and Evaluation of VOC Abatement Equipment", presented at the SSA Annual Meeting in San Diego, California, April 1996.

Frisch, E. "The Title V Operation Permit Program", a training course presented to United States Air Force (USAF) bases in Texas, November 1994 - February 1995.

Frisch, E., and Cabe, D., "Enhanced Monitoring and Application to the Semiconductor Industry", presented to confidential client, semiconductor/microelectronics industry, November, 1994.