# LINDA GUARASCIO-HOWARD, Ph.D., C.S.P., C.I.E. ERGONOMICS AND SAFETY RESEARCH AND CONSULTING

Office Ergonomics Evaluations & Research Healthcare Ergonomics Consultant/Researcher Telecommunications Ergonomics and Safety Assembly Line Workstation Evaluation Warehouse Material Handling Construction Safety and Ergonomics Hospital First Receiver Training Emergency Management Hazardous Communication Training & Programs Building Code Analysis Lighting and Environmental Quality OSHA Compliance and First Aid Instructor

# EDUCATION

**B.S. Business Administration** Western Illinois University, December 1974. *M. A. Ergonomics and Biomechanics* New York University, May 2000. M.S. Industry and Technology (Safety)
Northern Illinois University, May 1983.
Ph.D. Human Factors and Design
Arizona State University, December 2004.

## **PROFESSIONAL DESIGNATIONS AND ORGANIZATIONS**

Certified Safety Professional (C.S.P.) Board of Certified Safety Professionals, 1981. American Society of Safety Engineers Phoenix Chapter Board, 1978. International Society of Occupational Ergonomics and Safety, 2005. Certified Industrial Ergonomist (C.I.E.) Oxford Institute, 2000. Greater Phoenix Ergonomic Roundtable Participate in presentations and activities, 1995. International Code Council, 2005.

# ERGONOMICS CONSULTING/RESEARCH

**Research - Healthcare Safety and Workstation Design**: Research of nurse workstations and the relationship to communications, response to patient safety: 2005 to present.

**Research - Office Ergonomics and Human Interaction:** Research of multiple disciplines related to computer software and workstation design: 2001 to present.

*Heath Care*: Evaluate patient - caregiver safety and ergonomics exposures. Develop training, design interventions, and exposure control methods applying OSHA, JCAHO, research, and safety standards.

*Office Ergonomics:* Evaluation of office risk factors, workstation design, computer interaction, handling of stock storage, and mail processing.

**Assembly Workstations**: Evaluated workstation layout, hand tool design, and risk factors (force, posture, repetition and fatigue). Performed extensive task analysis through direct measurements and observation.

**Construction and Telecommunications:** Job analysis of ergonomic risk factors related to material handling, and mechanical exposures. Conducted job site observations of critical skills and work procedures.

*Material Handling and Warehouse Operations*: Analyzed manual material handling exposures utilizing biomechanical, psychophysical methods, and task analysis.

**Vehicle Ergonomics:** Evaluated interior vehicle seating design and control interface. Analyzed telecommunications vans for equipment location and human factors issues.

Ergonomics Labor Management Committee: Ergonomics consultant and management liaison.

# SAFETY CONSULTING

*Healthcare First Receiver, and Safety Training*: Developed and presented hospital First Receiver training including response to hazardous materials and terrorism events from biological, nuclear and chemical hazards. Presented training to caregivers on ergonomics and OSHA compliance.

*Safety and OSHA Compliance*: Conducted management and OSHA compliance audits for a wide variety of industries including healthcare, manufacturing, and University environments.

*Construction Safety:* Conducted audits of OSHA regulations and safety management procedures. Provided job site safety training and tool-box meetings.

*Fire Safety Audits:* Evaluation of life safety and emergency operations as required by local building codes and the NFPA. Analyzed sprinkler system design, water demand, and water supply availability.

**Vehicle Fleet Audits:** Evaluated effectiveness of fleet safety program elements and accident analysis procedures. Assisted with the development of vehicle safety policies and training programs.

*Industrial Hygiene Audits*: Evaluated exposures to lighting, noise, and indoor air quality. Developed cost effective recommendations to abate and control exposures.

# TEACHING

*"Behavior and Safety", "Workplace Health and Safety " and "Ergonomics":* Applied Psychology Department, ASU East: 2004-2006.

"Interior Codes: Public Welfare and Safety": ASU and Mesa Community College: 2001-present.

*Ergonomics Certification Program*: Developed and administered training and certification program for Travelers Insurance Company Engineers: 1999-2000.

**OSHA Compliance Programs and Lead – Cadmium Hazard Awareness**: Developed and administered lead and cadmium training program for AT&T and GTE telephone line installation operations: 1992-1998.

Job Safety Analysis and Accident Investigation: Developed and administered training program developed for GTE, W.W. Granger, and AT&T Regional Safety Supervisors: 1992-2000.

*"Safety and Accident Prevention":* Business Administration Department, Roosevelt University, Chicago IL: 1989-1990.

# **RESEARCH PUBLICATIONS AND SAFETY-ERGONOMICS PROGRAMS**

*International Occupational Ergonomics and Safety Conference:* "Office Ergonomic Program Evaluation of Employee Pain and Production Loss". Paper presented June 2009.

Guarascio-Howard, L. & Malloch, K. (2007). Centralized and Decentralized Nurse Station Design: An Examination of Caregiver Communication, Work Activities, and Technology. *Health Environments and Design Research*, Fall, 44-57.

*Evidence-Based Practice Conference, ASU School of Nursing:* "The relationship of Nurse Station Design to Caregiver Communications and Quality of Care in a Clinical Setting". Presentation, March 2007.

*Interior Design Educators Conference:* "Introduction Of Quantitative Methods and Instrumentation Into Interior Design Studios". Presentation, March 2006.

*International Occupational Ergonomics and Safety Conference:* "Bridging the Gap Between Human Factors and Ergonomics For Software Usability". Paper presented June 2005.

*Arizona State University*: "Interdisciplinary Approach to Computer Workstation Evaluation". Dissertation approved December 2004.

*Human Factors and Ergonomics Society:* "Using Kinematics to assess Software Usability and Ergonomic Risk Factors". Paper presented September, 2004.

*Human Factors and Ergonomics Society:* "Relevance Of The User Action Framework And Heuristics To E-Learning". Paper presented October, 2003.

**OSHA Compliance Programs:** Developed Hazardous Communication Programs for the American Broadcasting Company, and Emergency Evacuation Programs for AT&T.

*Office Ergonomics Programs:* Developed office ergonomics policies, procedures, and training programs. Clients included AT&T, GTE, Price Waterhouse Cooper, and Bristol Meyer Squibb.

**Corporate Ergonomic and Safety Policies:** Developed programs for AT&T, Zurich America and National Accounts such as Price Waterhouse Cooper, Carter Wallace and GTE. Policies included methods of surveys, training requirements and committee meeting participation.

**Safety Program Manuals:** Developed trade association safety manuals for Precast Concrete Association, National Beer Wholesalers, and the International Fence Contractors.

*Insurance Industry Ergonomic and Safety Policy Positions*: Responded to proposed regulations and standards. Generated technical documents based on regulations, voluntary standards and research.

**Published in Occupational Health and Safety:** Mandated Loss Control: Workers Comp Solution or Legislative 'Quick Fix', January 1992.

# EMPLOYMENT HISTORY

#### Ergonomics and Safety Research Consultants, LLC, July 2000 to Present.

Conduct ergonomics and safety research and consultation services related to design of tasks, job sites, and workstations. Current research includes healthcare workstation design, patient safety, and communication networks. Consultation includes healthcare safety, office ergonomics, hospital first receiver training, building safety, emergency preparedness, building code analysis, and OSHA compliance training.

#### Ergonomics Specialist, AHCCCS – State of Arizona, July 2007 to Present.

Part time ergonomics specialist assisting employees with ergonomic, safety, and health issues. Consultation includes analysis of workstation design, physical capabilities, and environmental factors.

#### Professor Associate, Arizona State University and Mesa Community College, 2002 to Present.

Courses include "Ergonomics" and "Behavior and Safety" and "Workplace Safety and Health".

#### Research Assistant, Arizona State University, September 2002 to 2005.

Researched ergonomics issues for ASU clients including a focus group for City of Phoenix bus drivers using wheel chair tie down devices related to a SBIR grant.

# *Ergonomics Specialist and Account Manager*, Travelers Insurance Company, Jan 1998 to July 2000.

Safety and human factors consulting for national accounts. Specialty areas include ergonomics, biomechanics, anthropometry, human factors standards, environmental and safety. Analyzed risk factors of health care workers for slip/fall and patient handling exposures.

## President, Office ERGO Solutions, Jan 1997 to Dec 1998.

Consulting services included ergonomic and safety programs. Conducted workstation analysis, identifying design deficiencies affecting workstations and computer-user interface. Developed training programs and assisted with appropriate design changes. Major client industries included telecommunications, chemical, pharmaceuticals, and government agencies.

## Technical Services Account Manager, Kemper Insurance, Jan 1995 to Dec 1997.

Safety and ergonomics program consultation to national clients including telecommunications, television broadcasting, warehousing and retail. Determined accident trends and causation through databases. Developed and implemented client audits for employee safety, building safety, and industrial hygiene.

## *Ergonomics Technical Manager*, AT&T, Nov 1992 to Jan 1995.

Directed the Eastern Region Environmental and Safety staff and AT&T Business Units in ergonomics, safety, DOT, and environmental regulatory compliance. Conducted on site audits and developed regional and corporate training programs for safety, ergonomics, industrial hygiene, environmental and vehicle safety.

## Loss Control Workers Compensation Manager, Zurich-American, Apr 1991 to Sep 1992.

Directed corporate loss control and workers compensation policy for ergonomics, safety, and health. Reviewed legislation and standards, and developed corporate policy and procedures. Developed audits using OSHA, ACGIH, NFPA, ADA, and ergonomics standards.

## Safety and Health Manager, Alliance of American Insurers, May 1990 to Apr 1991.

Directed safety and ergonomic policy for Insurance Company association members. Reviewed legislation and standards as liaison to ANSI, NIOSH, OSHA and NFPA committees.

## Loss Control Consultant, CNA, Apr 1985 to May 1990.

Assisted contractors and manufacturing trade associations in developing industry safety and health programs regarding OSHA, ACGIH, NFPA, NIOSH and human factors engineering standards.

## Senior Engineering Representative Royal Insurance Company, Apr 1978 to Apr 1985.

Provided safety, health and fire protection consultation to manufacturing and commercial accounts. audits conducted for fire protection, employee safety, and vehicle safety. Clients were evaluated for OSHA, NFPA, DOT, ACGIH and DOT compliance. Presented safety and fire training at Royal seminars.

# COMMUNITY SERVICE

Ergonomics Presentations: Presenter to SCF of Arizona Safety Conferences, 2006 - Present.

*Ergonomics and Safety Standards*: Developed design standards for library workstations and building safety for the City of Phoenix, 2001 - 2003.

*Building Code Presentation*: Presented to the Southeast Valley Real Estate Association on ADA, local, national, and occupancy building codes, 2001.

*Office Ergonomics Evaluation Methods:* Presented to the Occupational Health Nurses Association, 1999.