BIOGRAPHICAL DATA

GARY S. NELSON, Ph.D., CSP, P.E.

NELSON & ASSOCIATES
3131 East 29th Street, Suite E
Bryan, Texas 77802
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Birth date: 08-02-44
Marital Status: Married
(3 children, 5 grand-children)

EDUCATION:

Post Graduate — Coursework pertaining to Means of Egress (Walking/Working Surface Design) College of Architecture, Texas A&M University, 2001.

Ph.D. — Interdisciplinary Engineering (Workplace, Premises, and Product Safety Engineering; Human Factors Engineering; and Industrial Health Engineering), Department of Interdisciplinary Engineering, Texas A&M University, 1975.

Interdisciplinary Engineering degrees are offered when study programs encompass engineering specialty areas and/or require coursework in more than one academic department.

M.S. — Industrial Safety Engineering, Department of Industrial Engineering, Texas A&M University, 1973.

B.S. — Business Administration (Management/Labor Relations), State University of New York at Buffalo, 1971.

HONORS:

Elected to (Academic) Honor Society of Phi Kappa Phi (4.0 Graduate GPR)

CERTIFICATIONS AND REGISTRATIONS:

Registered Professional Engineer (P.E.), Texas, No. 91532
Certified Safety Professional (CSP), Certification No. 3889
Certified (English XL) Variable Incidence Tribometrist (CXLT), No. 163

PROFESSIONAL SOCIETY MEMBERSHIPS:

American Society of Safety Engineers
Human Factors and Ergonomics Society
American Institute of Architects (Individual Allied Member)
American Society of Agricultural Engineers
Illuminating Engineering Society of North America
System Safety Society
American Society for Engineering Education

PROFESSIONAL ACTIVITIES AND ASSOCIATIONS

Member, National Fire Protection Association
Member, National Safety Council
Member, American Academy of Bereavement
V.P. and Member, Board of Directors, Texas Safety Association (1978-90)

EXPERIENCE:

Industrial and Business

Consultant - Gary S. Nelson, 1977-87; Nelson & Associates, 1987-Present. Accident cause analysis. Industrial, premises, and product related accident investigation. Workplace safety engineering. Machine guarding. Premises safety engineering (especially stairs, ramps, and level walking surfaces). Product safety engineering. Design of adequate warnings and instructions. Industrial, construction, premises, and product safety management. Fall protection and prevention (same level and from elevation). Human factors and ergonomics. Analysis of manual material handling tasks. System safety analysis. Safety research.

Safety and Health Engineer - Texas A&M University, 1974-1975. Provided safety engineering and industrial hygiene consultation services related to teaching/research laboratories, and university physical plant (building) construction, maintenance, and modification. Conducted comprehensive laboratory fume hood (ventilation) study.

Safety Engineer - Bethlehem Steel Corporation, Lackawanna Plant (18,000 employees), 1964-1970. Safety management of comprehensive industrial accident prevention activities including plant inspections, accident investigations, facility modifications, and management training in accident prevention related to safety in manufacturing, equipment design, and construction. Workplace air sampling. Participation in development of innovative corporate safety inspection techniques and the development of multi-media training aids.

Educational Institutions

Faculty, Texas A&M University, 1991-1994. Assigned to teach undergraduate and graduate coursework in industrial safety engineering, system safety engineering, and product safety engineering (one course per semester).

Faculty, Texas A&M University System, 1975-1987. Provided state leadership for Extension education programs in safety management, safety engineering, product safety, and occupational health. Emphasis was given to agricultural equipment, production, and processing safety. Additional emphasis given to general industry workplace accident prevention. Guest lecturer, Departments of Industrial Engineering, Agricultural Engineering, Engineering Technology, and Architecture and Environmental Design.

Graduate Research Assistant, Texas A&M University, Industrial Hygiene and Safety Engineering Division, Department of Industrial Engineering, Texas A&M University, 1972-1974. Assisted in the development and writing of research proposals and the development, conduct, and reporting of various research and training projects. Substitute and guest lecturer.

GRADUATE COURSEWORK:

Safety Engineering

Safety Engineering in Equipment Design (Product Safety)
Industrial (Workplace) Safety Engineering (Construction)
Safety Engineering in Facilities Design (Premises Safety)
System Safety Engineering (Hazard identification/control)
Machine Safeguarding
Safety in Materials Handling (incl. Manual Lifting)
Fire Protection and Prevention
Acoustics and Noise Control

Industrial Health and Environmental Engineering

Industrial Hygiene
Industrial Toxicology
Evaluation and Control of the Occupational Environment
Instrumentation for Industrial Hygiene
Experimental Analysis in Environmental Engineering
Industrial Ventilation
Laboratory Ventilation Systems Design and Evaluation
Environmental Analysis for Urban Areas

Human Factors Engineering

Human Factors Engineering
Man/Machine Systems Engineering
Human Factors Engineering in System Design
Human Physiological Response
Engineering in Man/Machine Interface

Support Areas
Systems Engineering
Statistical Analysis
Advanced Industrial Analysis (Statistics)
Human Relations in Industry (incl. Safety Management)

Masters Thesis
"Engineering-Human Factors Interface
in Stairway Tread-Riser Design."

Cited in Templer, J.A., *The Staircase: Studies of Hazards, Falls, and Safer Design*, Cambridge, MA: MIT Press, 1992.

Doctoral Dissertation
"Identification and Measurement of Select Factors
Which Bias Causation Analyses of Accident Phenomena."

Post Graduate Coursework

College of Architecture, Texas A&M University – Means of Egress (Design of Stairs, Ramps, Level Surfaces, Changes in Elevation, Lighting, Code Administration)

SELECT RECENT CONTINUING EDUCATION:

- 3D Static Strength Prediction Program, University of Michigan, Center for OH&S Engineering, April 2010.
- How and What We See – Eye Structure and Physiology, Illuminating Engineering Society, April 2010.
- Workplace Ergonomics, University of Michigan, Center for OH&S Engineering, (NIOSH Sponsored), March 2010.
- National Safety Council/Texas Safety Association Conference and Exposition (Treatment of Back Injuries, Fall Protection, and Moving to Task Based Lock-Tag-Try), March 31, 2008.
- Photogrammetry – Single Photo Perspective, August 31, 2006.
- Fall Protection, American Society of Safety Engineers, January 25, 2006
- Managing Contractor Safety, American Society of Safety Engineers, January 27, 2006
- Safety Programs for Spanish Speaking Workforces, January 28, 2006
- Variable Incidence Tribometer Certification Program, International Safety Academy, June 1, 2005.
- Solving International Building Code (IBC) Means of Egress Issues, International Code Council, April 28, 2005.
- International Building Code (IBC) Accessibility and Usability, International Code Council, April 28, 2005.
- Teaching Electricity [to] Non-Engineers, American Trainco, May 3, 2004.
- American Society of Safety Engineers Professional Conference (Construction Risk Assessment, Fall Protection, Construction ANSI A10 Standards, Integrated Hazard Analysis, Accident Investigation, Confined Space Entry, Hospitality Safety), June 2003.
- Fall Protection, Texas Worker's Compensation Commission, March 28, 2001
- Trenching and Shoring, Texas Worker's Compensation Commission, March 28, 2001
- Construction Safety, Texas Worker's Compensation Commission, January 24, 2001