

Theodore J. Hogan, PhD, CIH

Associate Professor (effective 08-16-16)

Department of Technology, College of Engineering and Engineering Technology

Northern Illinois University

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Educational Background

B.A., Chemistry, Loyola University of Chicago, 1978

M.S., Public Health (Industrial Hygiene), University of Illinois at Chicago, School of Public Health, 1980

Ph.D., Public Health (Industrial Hygiene), University of Illinois at Chicago, School of Public Health, 1982

Academic Experience

1980-1982, University of Illinois at Chicago, School of Public Health, Instructor (50% appointment). Primary instructor for graduate Industrial Hygiene course. Developed a graduate summer field study course where students conducted industrial hygiene assessments at a steel foundry

1985-1987, Illinois Institute of Technology, Toxicology (graduate course). Instructor (adjunct)

1982-Present, University of Illinois at Chicago, School of Public Health, Adjunct graduate faculty, (unpaid). Primary instructor for graduate Risk Assessment course (2000, paid). Lectures in graduate Hazardous Waste courses

2005-2009, Benedictine University, Instructor, Public Health (50% appointment). Coordinator, Disaster Management Program. Graduate Public Health Courses taught: Environmental Health, Cultural Context of Health Care in U.S., Health Care Safety Management, Disaster Management in Public Health, Biology of Public Health

January 2011-Present, Northern Illinois University, Associate Professor (tenured, effective 08-16-16). Assistant Professor (2011-2016), Department of Technology. Course Load: 6 courses per year. Student Load: Fall 2015 (~100 students), Spring 2016 (~100 students). Typical courses taught

- Tech 231: Safety Programs, 3 hours
- Tech 245: Pollution Prevention and Sustainable Production, 3 hours (GenEd course)
- Tech 433/533: Toxicology for Industry, 3 hours
- Tech 436/536: Design and Administration of Safety Programs, 3 hours
- Tech 411: Greening Industrial Operations, 3 hours
- Tech 441/541: Hazard Control in Industrial Operations, 3 hours

2013-Present, Northern Illinois University, Institute for the Study of the Environment, Sustainability & Energy, Faculty Associate

Licensure and Certification

Licensed Industrial Hygienist, State of Illinois, Environmental Protection Agency (2011-Feb 2015)

Note: LIH program ended by IEPA in 2015.

Certified Industrial Hygienist (CIH), #2772, Comprehensive Practice, American Board of Industrial Hygiene (1984, renewed through December 1, 2017)

Professional Experience

1982-1989, Commonwealth Edison, Chicago

- **First Industrial Hygienist hired at ComEd.** Developed IH programs for asbestos, hazard communication, respiratory protection, hearing conservation, and many others
- **Corporate head of safety and industrial hygiene for 18,000 employee company**
 - Superintendent, Safety and Industrial Hygiene (1987-1989)
 - 6 direct reports
 - 23 indirect reports

1989-1990, Nova Environmental Services, Des Plaines, IL, Division Manager, Industrial Hygiene

1990-Present, Theodore J. Hogan & Associates, Inc., Lemont IL. President. Analysis of environmental and occupational exposures. **Prior to employment at NIU**, provided consulting services to over 400 entities, with a staff of up to 15 employees.

Publications: Journals (peer-reviewed)

Hogan, T.J., Nalbone, J.T., (2016). **Threshold Limit Values, The Development Process: A TLV® Is Not Just a Number**, *Professional Safety*

Hogan, T.J., Kelter, P., **Discerning the Difference Between “Feel Good” and “Real Good”: Teaching the Complexity of Sustainable Development**, *The Science Educator*, (accepted November 2014, to be published in 2015)

Hogan, T.J., Kelter, P., (2015). **Put A Brick In The Toilet: Overcoming Student Perceptions of the Effectiveness of Naïve Environmental Solutions**, *Journal of Sustainability Education*, Vol. 8.

Hogan, T. J. (1993). **Case Study “Carcinogens:” the MBOCA TLV Example**. *The American Industrial Hygiene Association Journal*, 54(8), 458-460.

Main, D. M., & Hogan, T. J. (1983). **Health Effects of Low-Level Exposure to Formaldehyde**. *Journal of Occupational and Environmental Medicine*, 25(12), 896-900. (50 Web of Science citations)

Publications: Book Chapters

TLVs® and BEIs® Based on the Documentation of the Threshold Limit Values for Chemical Agents, (2015), (As a member of the ACGIH TLV® Committee), (ISBN: 978-1-607260-77-6), ACGIH, Cincinnati (issued annually).

Hogan, T.J., (2012). **Air Sampling**, Chapter 16 in **Fundamentals of Industrial Hygiene**. Barbara A. Plog and Patricia J. Quinlan, editors, 6th Edition, National Safety Council, Itasca, IL (ISBN: 978-0-87912-312-3).

Gonser, M. Hogan, T.J. (2012). **Arc Welding Health Effects, Fume Formation Mechanisms, and Characterization Methods**, chapter in **Arc Welding**. Wladislav Sudnik, Editor, InTech Publishing, Rijeka, Croatia (ISBN 978-953-307-642-3), December 2011.

Hogan, T.J., (2008). **Ensuring Effective Risk Communication Before and During a Disaster**, chapter in **Emergency Management in Higher Education**. Jessica Hubbard, Editor. Publisher: Public Entity Risk Institute (ISBN 978-0-9793722-1-6), (2008)

Hogan, T.J. (1996). **Particulates** chapter. In **Fundamental of Industrial Hygiene**, 4th Ed., Plog, B.A., Niland, J. and Quinlan, P.J. Itasca, Illinois: National Safety Council, (ISBN: 978-0879121716) pp 175-196.

Hogan, T.J. (1988) **Foreword**, and revisions to **Particulates** and **Temperature Extremes** chapters. In **Fundamentals of Industrial Hygiene**. Plog, B.A. and Niland, J., Editors. Itasca, Illinois. National Safety Council, 3rd Ed. (ISBN: 978-0879120825).

Hogan, T.J., (1984) **Safety Procedures in Photography**, Section in **The New Photography: A Guide to New Images, Processes, and Display Techniques for Photographers** by Reeve, K., and Sward, Prentice Hall (ISBN: 978-0136149170)

Publications: Conference Proceedings (peer-reviewed)

Hogan, T.J., (2013), **Teaching Sustainability, One Rag at a Time**. *American Waste Management Association, Conference Proceedings* Chicago

Hogan, T. (2011). **Assessing Effectiveness of Dermal Exposure Control Work Practices in the Castable Polyurethane Industry**. *Dermatitis*, 22(5), 302-303.

Klingner, T., & Hogan, T. (2011). **Integration of Bio-Monitoring and Dermal Exposure Assessment**. *Dermatitis*, 22(5), 299-300.

Wadden, R. A., Allen, R. J., Scheff, P. A., & Hogan, T. J. (1980). **Aerosol Size Characteristics In Chicago Air**. In *Proc. 5th International Clean Air Conference*.

Publications: Other Journals and Trade Magazines

Hogan, T.J., **Heat Stress**. *Compliance Magazine*, July/August, 1998

Hogan, T. J. (1988). **Airborne Asbestos Monitoring Techniques that Work**. *Power Engineering*, 92(8), 30-35.

Hogan, T. J., & Libersher, C. L. (1987). **In-house Removal Systems Provide Improved Compliance, Reduced Liability**. *Occupational Health & Safety*, 56(10), 92-95.

Publications: Training Manuals for Midwest Asbestos Information Center, Univ. of IL at Chicago

- **Asbestos Control: Competent Person Training for Industry**. (1991). Co-Editor
- **Local Education Agency Designated Person Course** (1990). Author
- **Building Inspection/Management Planner Review**. (1990). Author
- **Project Designer**. (1989). Co-Author
- **Working Safely with Asbestos**. (1989). Author
- **Practices and Procedures in Asbestos Control for Electric Utilities and Industrial Operations**, (1988). Co-Editor

Papers Read at Professional Meetings (refereed)

Kelter, P., Hogan, T.J., **Engineering in Action: How Our Students Learn to Develop Sustainable Products and Processes**, National Science Teachers Association, Chicago National Conference, March 2015

Hogan, T.J., **Engaged Learning: Understanding the Practice of Industrial Hygiene by Practicing Industrial Hygiene**, (poster session), AIHCE, San Antonio, May 2014

Hogan, T.J., **Teaching Sustainability, One Rag at a Time**, (poster session), American Waste Management Association, Chicago, 2013

Watson, A. (NIU undergrad), Hogan, T.J., **Putting Dermal Exposure Control in Workers Hands**, (poster session), Professional Conference on Industrial Hygiene, Baltimore 2011

Hogan, T.J., **Assessing Effectiveness of Dermal Exposure Control Work Practices in the Castable Polyurethane Industry**, (poster session), Occupational and Environmental Exposure of the Skin to Chemicals Conference, Toronto, June 2011

Hogan, T.J., Fowle, C., Mamani, M., **Effectiveness of Voluntary Work Practice Guidelines in Reducing Dermal Exposures**, American Industrial Hygiene Conference & Expo, Denver 2010

Elements and the Skin (Session Arranger), American Industrial Hygiene Conference & Expo, Chicago, IL, 2006

Hogan, T.J., **Lessons from the Field (Dermal Exposures Roundtable)**, American Industrial Hygiene Conference & Expo, Atlanta, Georgia, 2004

Hogan, T.J., **Business Crises are Not Forest Fires**, American Industrial Hygiene Conference & Expo, Atlanta, Georgia, 2004

Hogan, T.J., **Picking the 'Right' Glove is Wrong**, American Industrial Hygiene Conference & Expo, Dallas, Texas, 2003

Hogan, T.J., Bernard, T.J., **Personal Protection Management Program**, American Industrial Hygiene Conference, San Francisco, 1988

Hogan, T.J., and Bernard, T.J., **Personal Protection Management Program**, IEEE Conference on Human Factors, Monterey, California, 1988

Hogan, T.J., and Libersher, C.L., **Establishing In-House Asbestos Removal Capabilities**, American Industrial Hygiene Conference, Montreal, 1987

Hermann, E.R., Hogan, T.J., **Guidelines for Setting Exposure Guidelines**, American Industrial Hygiene Conference, Philadelphia, 1983

Hogan, T.J., **Establishing Human Exposure Guidelines**, (invited speaker), Joint Conference on Occupational Health, Chicago, 1982

Hogan, T.J., Hermann E.R., **A Solid Sorbent Grab Sampling System for Acrolein Utilizing Thermal Desorption**, American Industrial Hygiene Conference, Houston, 1980

Professionally Oriented Public Service Activities

Threshold Limit Values Chemical Substances Committee, American Conference of Governmental Industrial Hygienists. Committee Member, (2012-Present)

Argonne National Laboratories-Institutional Biosafety Committee, Member, (2010-Present)

University of Illinois at Chicago, Occupational Medicine Residency Program, Advisory Committee, (1988-present)

Expert Testimony. Testified/deposed in approximately 25 cases involving workplace and environmental safety and health issues, including electrical injuries and fatalities, chemical exposure in a

power plant, construction fatality, student exposures from gasoline vapor intrusion, and occupational lung diseases. (2000-Present)

Metropolitan Water Reclamation District, Chicago. Participated in the safety professional examination review (June 2012)

METRA, Chicago, IL. Provided risk assessment expertise on diesel exhaust exposures (2011)

American Conference of Governmental Industrial Hygienists, National Board of Directors, Director at Large. (2008-2010)

Cook County Hospital, Occupational Medicine Residency Program Advisory Committee, Member, (1988-2007)

American Industrial Hygiene Association - Chicago Section, Board Member. (1986-1989, 1994-1995)

National Safety Council, Industrial Division, Occupational Health Hazards Committee. Member, (1983-1984). **Chairman**, (1985-1987)

Seminars and Professional Development Courses Delivered

Processing Techniques Seminar, Polyurethane Manufacturers Association, April 21, 2012, New Orleans. Taught seminar on working safely with Isocyanates and MOCA (developed at NIU with two students)

Understanding Chemical Hazards: From Drain Cleaners to Nanoparticles, 19th Annual Chicagoland Safety and Health Conference, September, 2007

How to Create a Disaster by Saying Things the Wrong Way (Risk Communication Techniques), FEMA Higher Education Conference, Maryland, 2007

Disaster Management: Perception is Reality, Polyurethane Manufacturers Association, Las Vegas, 2007

How Industrial Hygienists Can Help Toxicologists Evaluate Exposures, Illinois Poison Control Center, 2006

A Public Health Approach to Disaster Management, University of Illinois at Chicago, 2006

Hospital Laboratory Ergonomics, Illinois Hospital Association, Springfield, IL, 2005

Preventing Skin Exposures, AIHA Carolinas Section, Charlotte, NC, 1998

Complying with OSHA's PPE Standard: Measuring and Preventing Skin Exposures to Chemicals, Hazmat International, Philadelphia, 1995

Preparing OSHA Compliance Programs, University of Illinois at Chicago, 1994, 1995

Personal Protective Equipment Workshop, Illinois Safety Council, 1994

OSHA Compliance Programs, series of speeches and regulatory compliance seminars for the Polyurethane Manufacturers Association, 1993-1994

Hazard Communication, Illinois Manufacturer's Association, 1993, 1994

Practical Aspects of Industrial Hygiene, National Safety Council, Chicago, 1982-1991

Poisons, Thresholds and Witchcraft: Establishing No-Effect Dosages, with E.R. Hermann American Industrial Hygiene Conference Professional Development Seminars: Philadelphia, 1983; Detroit, 1984; Montreal, 1987; San Francisco, 1988

Midwest Asbestos Information Center, Various lectures on asbestos, 1986-1990
Developing In-House Asbestos Removal Capabilities, Iowa-Illinois Gas and Electric, 1988
Asbestos, AIHA-Chicago Section and University of Illinois at Chicago, 1987
Asbestos, Health Evaluation Program Meeting, Chicago, 1987
Confined Spaces, Illinois Safety Council, 1987
Asbestos in Utilities, University of Illinois at Chicago, 1987
Asbestos Removal Techniques, AIHA-Chicago Section, 1984
Non-Radiation Hazards at Nuclear Power Plants, Northwestern University, 1983
Hearing Conservation Amendment, Rock Island, 1982

Commercial Products

Chemical Hazard Fact Finder, (Technical revision), National Safety Council, 1986
Working With Asbestos, (Slide program technical outline), National Safety Council, 1986

Research Grants at NIU

Building Environmental, Health, Safety and Sustainability (EHSS) in Very Small Businesses, \$68,525, (G6B-7019-01A), IMEC, Theodore J. Hogan (Principal Investigator) and William Mills (Co-investigator). Total grant includes NIU cost share (\$22,841 from IMEC). (2014)
MBOCA Safety Review, \$5000, (G5A64128-02B), Polyurethane Manufacturers Association (2014)
Exposure Investigation, \$1200, (G5A64118), Moore Glass (2014)
Safety and Industrial Hygiene Assessment and Controls for Aluminum Recycling and Smelting Operations, \$13,350, (G5A64031) J.L. French/Allotech (2012)
Practices for Preventing Skin Exposures to Isocyanates and MOCA, \$4800, Polyurethane Manufacturers Association (2012)
MOCA (4, 4' methylene-bis-orthochloroaniline) Handling and Skin Exposure, \$8,657, (G5A64011), CAM Specialty Products (2011)
Non-entry Truck Tanker Cleaning, Exposure Monitoring and Procedures, \$2650, Heniff Transportation, LLC. (2011)
Workplace Safety and Dermal Exposure Control Program, \$12,000, Kastalon Inc. (2011)
Safety Management and Safety Training, \$6000, Chellino Cheese Company (2011)
Summer Curriculum Development Grant: Greening the Industrial Facility, \$2,000. The Institute for the Study of Environment, Sustainability, and Energy (ESE), NIU (2011)

Prior Research Grants

MBOCA Handling Practices of PMA Members (at Benedictine University), Principal Investigator, \$30,000. Polyurethane Manufacturers Association (2009)
Personal Protection Management Program (at Commonwealth Edison), Project Manager and Principal Investigator, \$278,000. Electric Power Research Institute (EPRI RP#2705-6) (1987-1988)
Personal Protection Used in Nuclear Power Plants (at Commonwealth Edison), Co-investigator, \$175,000. Electric Power Research Institute (EPRI RP#2705-1) (1985-1986)

University Service

Committees

- Presidential Commission on the Status of Minorities (Fall 2014-Present)
- University Press Board (Fall 2012-Present)
- CEET Curriculum Committee (Fall 2012-Spring 2016)
- Search Committee for position #6510 (Spring 2012)

Project Advisor, Judge, Mentor

- Advise 32 students each semester (Fall 2012-Present)
- First Year Mentor (2014-2015)
- URAD judge (2013-2015)
- Senior Design advisor (2012-2015)
- Research Rookie advisor (2012-1013)

CEET High School Tours and Summer Labs

- Summer camp labs (2011)
- Three labs for 30 Leyden High School Physics students (February 2012)
- Rockford School District High School Students (March 2014)

U-46 Teacher Workshop

- Environmental sustainability teaching techniques for middle school teachers, (June 2014)

Private consulting contact information

Theodore J. Hogan & Associates, Inc.
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theodorejhogan@gmail.com