

CURRICULUM VITAE

SALVATORE ROBERT DINARDI, PhD, CIH, FAIHA

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QUALIFICATIONS SUMMARY

A committed highly motivated health and safety professional with practical, and real world experiences, dedicated to protecting people at home and at work. Demonstrated scientific expertise and leadership in education, training, industrial/occupational hygiene consultation, and outreach to the public as well as the business community to promote a safe and healthful home and work environment. Demonstrated commitment to the US Navy Submarine Force to promote a safe and healthful submarine environment. Highly organized with the ability to manage multiple projects and meet deadlines.

EXPERTISE

Retrospective exposure reconstruction

- Submarine air quality
- Consulting committed to applying scientific principles to solve real world industrial/occupational hygiene problems
- Scientific leadership and communication
- Education, academic administration, training, and outreach

HEALTH AND SAFETY PROFESSIONAL EXPERIENCE

- Principal scientific consultant to the United States Navy's Submarine Atmosphere Health Assessment Program, Sub Base New London, Groton, Connecticut
- Chemical agent demilitarization program reviewer
- Long-term and low-level detection of chemical weapons
- Mathematical modeling to reconstruct past chemical exposures
- Significant experience applying scientific principles, and common sense to identifying and controlling occupational health and safety problems
- Editor of the internationally recognized seminal occupational hygiene reference *The Occupational Environment, its Evaluation and Control* (1997)
- Editor of the second edition to the internationally recognized occupational hygiene reference *The Occupational Environment, its Evaluation, Control, and Management* (2003)
- An internationally recognized Professor of Occupational Hygiene and Public Health, with 35+ years of academic and practical experience

ACADEMIC ADMINISTRATIVE EXPERIENCE

- Department chair
- Curriculum development and program evaluation
- CEPH self study report preparation
- Managing an on line MPH program
- Mentoring faculty, staff, and students
- Strong organizational, leadership and interpersonal skills
- Active involvement in discipline-related professional organizations

COMPLETE DETAILED CURRICULUM VITAE FOLLOWS

EDUCATION

1971 Ph.D. in Physical Chemistry, University of Massachusetts, Amherst
 1965-1967 Theoretical Chemistry, State University of New York at Stony Brook
 1965 B.A. in Chemistry, Hofstra University, Hempstead, New York
 1961 High School Diploma, Martin Van Buren High School, Queens, NY

POST-DOCTORAL EDUCATION

GRADUATE LEVEL COURSES

1978, 1979	University of Minnesota, Epidemiology and Biostatistics	15 Credits
1979-1980	University of North Carolina, Industrial Hygiene Program	23 Credits
1973	Harvard School of Public Health, Environmental Health	10 Credits

SHORT COURSES AND WORKSHOPS

2005	Introduction to the Incident Command System,	IS-00100 (ICS 100)
2005	National Incident Management System an Introduction	IS-00700
2005	Homeland Security Medical Executive Course	(40 CEUs)/5 CM Points
2002	Management of CBRNE casualties	3 CM Points
1980-2000	Industrial hygiene, air pollution, radon and chemistry	225 CEUs

ADMINISTRATIVE EDUCATION

1979-2004 Curriculum development, academic administration, conflict resolution 80 CEUs

EMPLOYMENT -- UNIVERSITY OF MASSACHUSETTS

2005- Professor of Environmental Health Sciences (Emeritus)
 1998-2005 Professor of Environmental Health Sciences and Occupational/Industrial Hygiene
 2002-2005 Director of Public Health Practice online MPH Program
 1995-2005 Chairperson of Environmental Health Sciences Department
 1992-1995 Chairperson of Environmental Health Sciences Program
 1981-2005 Director of Industrial/Occupational Hygiene Program
 1976-1998 Associate Professor of Public Health, (Sabbatical leave, 1979-1980)
 1975-1979 Chairperson of Environmental Health Program
 1971-1976 Assistant Professor of Public Health
 1970-1971 Instructor in Public Health

EMPLOYMENT -- OTHER

2014- Co-Investigator for Mass Casualty Triage Grant U of South Carolina Collage of Nursing
 2014 Adjunct Professor, Environmental Health Sciences, University of South Carolina
 2012- McKean Defense Group contractor: NAVSEA Philadelphia on submarine air quality
 2003-2014 Principal Scientist *dinardi-cih.com*
 1999- Consulting expert witness on retrospective occupational exposure assessment modeling
 1998- SAIC contractor: Industrial Hygiene Principal Scientist, Submarine Atmosphere Health Assessment Program, Naval Submarine Medical Research Laboratory, Groton, CT
 1997-1998 IPA Assignment as Principal Investigator, Submarine Atmosphere Health Assessment Program, Naval Submarine Medical Research Laboratory, Groton, CT
 1989-1999 Scientific Director OccuHealth, Inc. (Part-time)
 1985-1996 Continuing Education Director, PHRA, Inc. (Part-time)
 1979-1980 Visiting Associate Professor, University of North Carolina, School of Public Health
 1968-1970 Graduate Assistant in Physical Chemistry, University of Massachusetts Amherst
 1966-1967 Graduate Assistant in Quantitative Analysis, SUNY at Stony Brook
 1965-1966 Graduate Assistant in Freshman Chemistry, SUNY at Stony Brook

HONORS AND AWARDS

2009-	Adjunct Professor of Environmental Health Sciences, University of South Carolina
2007	Howard Fawcett Award from the American Chemical Society, Division of Chemical Health and Safety, "For Outstanding Contributions to Chemical Health and Safety
2004	Awarded Fellow status (FAIHA) by the Board of Directors, American Industrial Hygiene Association in recognition to those individuals who have made a significant contribution to the field of industrial hygiene. Limited to five percent of the Association's membership
2003	Certificate of appreciation for Coordination of the Professional development Course Calculation Methods for Industrial Hygiene, AIHA, Exposure Assessment Committee
2002	Distinguished Service Award, Exposure Assessment Committee AIHA
2002	Certificate of Appreciation AIHA Press Publication Committee for contributions to <i>The Glossary of Industrial Hygiene</i>
2001	Distinguished Service Award, American Industrial Hygiene Association
2001	3 rd Annual AIHA Press Publications Contest, Selected as top Selling 1998 General Publication, <i>The Occupational Environment - Its Evaluation and Control</i>
2000	2 nd Annual AIHA Press Publications Contest, Selected as top Selling 1998 General Publication, <i>The Occupational Environment - Its Evaluation and Control</i>
1999	Elected Delta Omega Honorary Public Health Society, Rho Chapter
1998	1 st Annual AIHA Press Publications Contest, Selected as top Selling 1998 General Publication, <i>The Occupational Environment - Its Evaluation and Control</i>
1997-	Adjunct Professor, Navy Undersea Medical Institute, Groton, CT
1995	Nominated as teacher of the year: Video Instructional Program, NTU
1992-	American Board of Industrial Hygiene, Certified in the Comprehensive Practice of Industrial Hygiene, Certification Number 5705
1991	Honorary Member Alpha Sigma Lambda, Continuing Education Honor Society
1990	Certificate of Recognition, Johns Hopkins, Applied Physics Laboratory
1990	Certificate of Appreciation American Institute of Plant Engineers
1979-1980	NIOSH Post Doctoral Fellowship, University of North Carolina
1973	NSF Post-Doctoral Fellowship in Environmental Health, Harvard University
1971	Honorary Member Sigma Xi
1965	Highest Cumulative Average American Chemical Society, Hofstra University
1964	National Science Foundation Research Assistant, Boston University

PROFESSIONAL SOCIETIES

2007-	American Conference of Governmental Industrial Hygienists (ACGIH)
1997-	Naval Submarine League
1992-	Diplomate of the American Academy of Industrial Hygiene (AAIH)
1992-	American Board of Industrial Hygiene (ABIH)
1984-1996	American Society of Heating, Refrigerating and Air Conditioning Engineers
1984-1990	ASTM (formerly American Society for Testing and Materials)
1980-1996	Air and Waste Management Association (Air Pollution Control Association)
1979-	American Industrial Hygiene Association (AIHA)

ADVISORY BOARD MEMBERSHIP

2012-	Federal Occupational Health and the CDC, Chemical Weapon Demilitarization at Assembled Chemical Weapons Alternative (ACWA) sites, CDC Atlanta, GA
2011-2012	CDC Chemical Agent Demilitarization Expert Panel, Atlanta, GA
2010-2012	Women in Submarines Advisory Panel, Naval Submarine Medical Research Laboratory, SUBASE NLON, Groton, CT
2006	USS Hawaii Submarine Atmospheric Sea Trial Advisory Group, US Navy Bureau of Medicine and Surgery (BUMED-21), Washington DC
2005	Submarine Atmosphere Advisory Board, US Navy BUMED, Washington, DC
2004-2007	USS Texas Submarine Atmospheric Sea Trial Advisory Group
2004-2006	Virginia Class Submarine Atmospheric Sea Trial Advisory Group
1997-2005	Closed Living Spaces Environmental Concerns Working Group, US Navy Bureau of Medicine and Surgery (BUMED-21), Washington DC
1995-1999	Director, Competency Based Continuing Education Program Developments in the Fundamentals of Industrial Hygiene, University of North Carolina, Educational Resource Center, Chapel Hill, NC
1996-1998	Taskforce on Competency Based Education for Industrial Hygiene, American Academy of Industrial Hygiene, Lansing, Michigan
1986-1997	Medical Review Panel on Urea Formaldehyde Foam Insulation Massachusetts Department of Public Health, Boston, MA
1983-1989	New England Section of the Air Pollution Control Association, Member of the Board
1984-1988	Indoor Air Pollution Advisory Group, Center for Environmental Health and Human Toxicology, Washington, DC
1979-1981	University of North Carolina, School of Public Health, New Directions Program (US OSHA) Advisory Board
1977-1979	Commonwealth of Massachusetts, Department of Environmental Quality Engineering Technical Advisory Committee on Total Suspended Particulates
1979-1980	American Industrial Hygiene Association, Chairperson of the Nominations and Elections Task Force, Self-Evaluation Steering Committee
1978-1980	NEHA, Journal Advisory Board

NATIONAL COMMITTEE MEMBERSHIP

1995-2006	AIHA: Member of Exposure Assessment Strategies Committee
1988	APCA: Co chair, Fall Meeting, New England Section, Northampton, MA
1987	APCA: Co chair, Spring Meeting, New England Section, Sturbridge, MA
1987	APCA: Co chair, Fall Meeting, New England Section, Providence, RI
1985-1987	APCA: Member of the Technical Committee in Indoor Air Quality
1985	AIHA: Session Arranger Indoor Environment Section Meeting, Las Vegas, NV
1985	APCA: Co chair, Fall Meeting, New England Section, Enfield, CT
1984	APCA: Co chair, Fall Meeting, Northeast International Section Northampton, MA
1984	Massachusetts Executive Office of Energy Resources, Co chair of the Regional Wood Stove Air Pollution Conference
1984-1989	ASTM: D.22.04 Member of Indoor Air Pollution Sampling Methods
1983-1987	AIHA: Member of the Technical Committee on Indoor Air Quality
1983	AIHA: Chair of the Subcommittee on Chemicals in the Indoor Environment

INDUSTRIAL HYGIENE EXPERT WITNESS CONSULTING

2013-	Egan, Flanagan and Cohen, P.C.
2013	Hughes Hubbard & Reed LLP
2012	McAngus, Goudelock & Courie
2010-	Forman Perry Watkins Krutz & Tardy, Jackson, MS
2009-	Nelson Mullins, Columbia, SC
2009	Whetstone Myers et al., Columbia, SC
2008-	Jones Carr McGoldrick, Dallas, TX
2008-	Bernstein Shur, Portland, ME
2006, 2011	Regan & Kiely, Boston, MA
2006-2007	Maron & Marvel, Philadelphia, PA
2006	Goldberg Segalla Buffalo, NY
2005-2006	Jones Rook Austin, Dallas, TX
1997	Hinckley, Allen and Snyder, Boston, MA
1995-1996	Enviro - Health & Safety Management, Edison, NJ
1994	Skadden, Arps, Slate, Meagher and Flom, New York, NY
1994	Rose, Padden and Petty, Fairmont, WV
1993	Hall and Hess P.C., Manchester, NH
1993	Donoghue and Associates, Dover, MA
1990-1996	Robinson and McElwee Attorneys at Law, Charleston
1988	Lantz and Mulford, Attorneys at Law, New Bedford, MA
1984-1988	Covington and Burling Attorneys at Law, Washington, DC.

CONSULTING EXPERIENCE -- U.S. Navy Submarine Fleet

PRINCIPAL OCCUPATIONAL HYGIENE SCIENTIFIC EXPERT

2013-	Leidos, Contractor as principal scientific advisor, Submarine Atmosphere Health Assessment Program, Naval Submarine Medical Research Laboratory, Groton, CT
2012-	McKean Defense Group, NAVSEA Philadelphia, PA
2005-2013	SAIC, Contractor as principal scientific advisor, Submarine Atmosphere Health Assessment Program, Naval Submarine Medical Research Laboratory, Groton, CT
2002-	Long-term Low Level Chemical and Biological Weapons Detection
1998-	Naval Sea Systems Command, Washington, DC
1998-2005	GEO-CENTERS Inc. Contractor as principal scientific advisor, Submarine Atmosphere Health Assessment Program, Naval Submarine Medical Research Laboratory, Groton, CT
1997-	Closed Living Space Environmental Concerns Working Group, U.S. Navy, Bureau of Medicine, Washington, DC
1997-	Adjunct Professor, US Navy Undersea Medical Institute, Groton, CT
1997-	Naval Submarine Medical Research Laboratory, Groton, CT
1997-98	IPA Assignment as Principal Investigator, Submarine Atmosphere Health Assessment Program, Naval Submarine Medical Research Laboratory, Groton, CT

ENVIRONMENTAL HEALTH CONSULTING

1988	Allied Testing Laboratory - VOC Measurements for a Hazardous Waste Site
1984-1986	Sterile Products Manufacturing Company - Air Toxics Regulation and Indoor Air Pollution from Ethylene Oxide
1984-1986	C.T. Main Engineering Consultants - Acid Rain Deposition in Massachusetts

ENVIRONMENTAL HEALTH CONSULTING (continued)

- 1981-1986 Rush-Hampton Industries, Longwood, Florida - Design and testing of a whole house air cleaner for energy conserving residences.
- 1981 Community Hospital - Design of laboratory ventilation system to eliminate worker exposure to toxic materials.
- 1980 University Medical Center - Established a health and safety program for a research and service laboratory for a pharmacy department.
- 1979 AID - Knowledge synthesis project to prepare source documents and fact sheets on wastewater, excreta, and solid waste disposal in Lesser Developed Countries.
- 1977 Ethylene Oxide Sterilizer Manufacturing Company - Consultant on design criteria and safety performance of ethylene oxide sterilizer hardware installations. Designed an air sampling protocol for the assessment of the STEL for ethylene oxide in the workplace.
- 1975 Curran Associates, Northampton, Massachusetts - Collect and prepare data for air quality section of Environmental Impact Statement. Effects of highway realignment section on carbon monoxide levels. (To the EPA and Federal Highway Administration.)
- 1974 The Dexter Company, Windsor Locks, Connecticut - Established a testing protocol to evaluate ethylene oxide residue in surgical packs and their contents.
- 1974 Environmental Research and Technology, Inc., Lexington, MA Meteorological tracer studies using Sulfur Hexafluoride and Freons to study plume dispersions. Collection of grab samples and analysis by electron capture gas chromatography.
- 1973 Oxford Pickle Company, South Deerfield, MA - Locate the source and quantify the levels of iron and manganese in the leachate from filled in packing and storage area.
- 1973 Rush-Hampton Industries, Longwood, Florida - Qualitative instrumental analysis of citrus extract, using spectroscopic and chromatographic techniques.

CONSULTING EXPERIENCE -- INDOOR AIR QUALITY

- 1996- OccuHealth Inc, Mansfield, MA
- 1994 ITT FLYGT Corporation, Trumbull, CT
- 1993 Brigham and Women's Hospital, Boston, MA
- 1992 Sunderland School Department, Sunderland, MA
- 1992, 1989 Kollmorgen Inc., South Deerfield, MA (1992) and Northampton, MA (1989)
- 1991-1992 Cambridge School Department, Cambridge, MA
- 1991-1993 Amherst School Department, and Town of Amherst, Amherst, MA
- 1990-1991 Hamilton Standard, Windsor Locks, CT
- 1990 Bull Worldwide, Bedford, MA
- 1990 Raytheon Corporation, Lexington, MA
- 1988 Lowell Shoe Company, Hudson, New Hampshire
- 1988-1991 City of Springfield, MA
- 1988-1989 Contamination Control Consultant, Needham, MA
- 1984-1988 Covington and Burling Attorneys at Law, Washington, DC. Scientific testimony before the United States Congress and various state and municipal legislative bodies.
- 1984-1988 Center for Environmental Health and Human Toxicology, Indoor Air Pollution Advisory Group, Washington, DC.
- 1984 USEPA Review Nation Wide Survey Protocol for a Proposed National IAQ Survey
- 1984 Community Hospital, Western Massachusetts
- 1983-1993 Digital Equipment Company
- 1983 Office Building Complex, New York City

I personally surveyed more than ten million square feet of commercial and institutional spaces

PUBLISHED TEXTBOOKS

The Occupational Environment its Evaluation, Control, and Management - Textbook and CD

Edited by Salvatore R. DiNardi. American Industrial Hygiene Association edition of the NIOSH book: *Industrial Environment its Evaluation and Control*. (1336 pages) Second Edition, September 2003. ISBN: 1-931504-43-1

Glossary of Occupational Hygiene Terms

Edited by Salvatore R. DiNardi and William E. Luttrell. A single source for precise, detailed definitions for anyone studying or practicing occupational hygiene. American Industrial Hygiene Association Press. December 2000. ISBN 0-932629-07-X

The Occupational Environment its Evaluation and Control, Instructor's Guide

Edited by Salvatore R. DiNardi. A fifty chapter Instructor's Guide to accompany The American Industrial Hygiene Association edition of the NIOSH book: *Industrial Environment its Evaluation and Control*. (400+ pages and 1500+ PowerPoint slides on CD-ROM) March 1998

The Occupational Environment its Evaluation and Control - CD Edition

Edited by Salvatore R. DiNardi. American Industrial Hygiene Association: November 2000. ISBN: 0-932627-08-6

The Occupational Environment its Evaluation and Control- Textbook Edition

Edited by Salvatore R. DiNardi. American Industrial Hygiene Association edition of the NIOSH book: *Industrial Environment its Evaluation and Control*. (1365 pages) November 1997. ISBN: 0-932627-82-X

Calculation Methods for Industrial Hygiene

S. R. DiNardi. A 277+ page textbook on chemical and physical calculation techniques in industrial hygiene and air pollution. Published by Van Nostrand Reinhold March 1995. Reprinted by John Wiley and Sons ISBN 0-442-01821-5

Air Pollution and Lung Disease in Adults

Edited by Witorsch, P. and Spagnolo, S.V., CRC Press. Chapter One Exposure and Environmental Characterization, S. R. DiNardi pages 1 - 17 October 1994

TEXTBOOKS IN PROGRESS

Calculation Methods in Occupational Hygiene, Second Edition

S. R. DiNardi. A 350+ page textbook on chemical and physical calculations and modeling techniques in industrial hygiene and air pollution. Projected completion date Fall 2015

Industrial Hygiene Laboratory Procedures

A 400+ page laboratory manual emphasizing air sampling and continuous monitoring calibration techniques. Projected completion date Open

Industrial Exhaust Ventilation Design

A 350+ page lecture notes, problems and design procedures based on the ACGIH Ventilation Design Manual. The basic reference for Industrial Exhaust Ventilation Design Training Programs. Projected completion date Open

PUBLICATIONS AND PRESENTATIONS

DOCTORAL DISSERTATION

DiNardi, Salvatore R.

The Exchange of Alcohols with Octahedral and Tetrahedral Cobalt (II) Complexes. Ph.D. Dissertation, University of Massachusetts at Amherst, Massachusetts, 1971.

JOURNAL ARTICLES

DiNardi, S.R., *LAQ. La legislazione negli Stati Uniti, La Riforma Medica*, Volume 106, Number 3, March 1991, 117-124.

Decker, D.D., DiNardi, S.R., and Calabrese, E.J., *Does Chloroform Exposure While Showering Pose a Serious Public Health Concern?* Medical Hypotheses, Volume 15, Number 12, 1984, 119-124.

Tartaglia, M.S., DiNardi, S.R., and Ludwig, J.F., *Radon and Its Progeny in the Indoor Environment.* Journal of the National Environmental Health Association, Volume 47, Number 1, September/October 1984, 62-67.

Calabrese, E.J., Sacco, C., Moore, G.S. and DiNardi, S.R., *Sulfite Oxidase Deficiency: A Risk Factor in SO₂, Sulfite and Bisulfite Toxicity?* Medical Hypotheses, Volume 7, 1981, 132-145.

DiNardi, S.R., and Sacco, C., *Ethylene Oxide in the Hospital Environment.* Journal of Sterilization and Operating Room Epidemiology, Volume 5, Number 2, Spring 1980, 7-15.

DiNardi, S.R., McClean, C. and Sacco, C., *A Gas Handling System for Ethylene Oxide"* American Industrial Hygiene Association Journal, Volume 41, Number 10, October 1980.

Pratte, J.L. and DiNardi, S.R., *A Summer Camp Assessment: Report on the Status of Massachusetts' Children's Recreation Camps.* Journal of Environmental Health, Volume 42, Number 3, November/December 1979, 123-127.

Moore, G.S., Calabrese, E.J. and DiNardi, S.R., *Potential Health Effects of Chlorine Dioxide as a Disinfectant in Potable Water Supplies.* Medical Hypotheses, Volume 4, Number 5, September/October 1978, 481-496.

DiNardi, S.R., Sacco, C., *A Novel Holder for a Critical Orifice.* Journal of the Air Pollution Control Association, Volume 28, Number 6, June 1978, 603-604.

Yao, J.S., Calabrese, E.J. and DiNardi, S.R., *Does Ambient Ozone Pose a Serious Public Health Concern as a Widespread Environmental Mutagen?* Medical Hypotheses, Volume 4, Number 2, March/April 1978, 165-172.

DiNardi, S.R., and Desmarais, A.M., *Polychlorinated Biphenyls in the Environment.* Environmental Problems: Principles, Readings, Comments. Published by W.C. Brown Company, edited by W.H. Mason and G.W. Folkert. 1977

DiNardi, Salvatore R., and Desmarais, Anne Marie, *Polychlorinated Biphenyls in the Environment.* Chemistry, Volume 49, Number 4, May 1976, 14-17.

DiNardi, Salvatore R., and Briggs, Elaine S., *Hydrocarbon Levels in Ambient Air - A Laboratory Experiment.* Journal of Chemical Education, Volume 52, Number 12, December 1975, 811-812.

DiNardi, Salvatore R., MacDonald, Ellen and Wisnieski, Karol S., *Mercury Concentrations in Tissues of Fish from the Connecticut River.* Journal of Environmental Health, May/June 1974, 547-551.

TECHNICAL REPORTS

Review of Chemical Agent Safety Systems and Processes, At Chemical Materials Agency (CMA) Destruction Facilities, for CDC, through Carter Consulting Inc. In press, April 2012.

Champagne, D, DiNardi, SR, and Hagar, R, *Constituent Selection and Retrospective Monitoring Aboard Submarines*, SAE International Conference on Environmental System, June 2008. DOI: 10.4271/2008-01-2124

TECHNICAL REPORTS (continued)

- Daley, TJ, Hagar, RA, DiNardi, SR, Benton, P, Woolrich, R, Burnside, D, and Johnson, KJ. *Atmosphere Trials on United States Navy Submarines*, 2005 International Conference on Environmental System paper 219.
- DiNardi, S.R., and Hamilton, T.E., *Indoor Air Quality, Guidance for Investigating Problems with Air on the Inside, Massachusetts' Environment*, (page 12-13,22) May 1997.
- DiNardi, S.R., *Review and investigation to address specific technical issues raised during the site assignment evaluation for the Ogden Haverhill Facility in Haverhill, Massachusetts*, Massachusetts Department of Environmental Protection, Boston, MA 1992.
- DiNardi, S.R., *Indoor Air Quality and Engineering Control, Review*. January 1986. (219 pages).
- Tartaglia, M.S. and DiNardi, S.R., *The Calibration of an Automated Analyzer for Low Level Formaldehyde Analysis*. August 1985. (39 pages).
- DiNardi, S.R., and Rollins, M., *Formaldehyde in Health Care Facilities*. June 1985. (17 pages).
- Abromovitz, M.W. and DiNardi, S.R., *Time Weighted Average Formaldehyde Concentration from Two Passive Dosimeters and a Modified CEA Formaldehyde Analyzer*. January 1985. (22 pages).
- DiNardi, S.R., and Abromovitz, M.W., *Do Passive Formaldehyde Monitors Serve as a Reliable Surrogate to Continuous Monitoring?* December 1984. (19 pages).
- Tartaglia, M.S. and DiNardi, S.R., *A Comparison of Calibration Procedures for an Automated Formaldehyde Analyzer*. March 1984.

PROCEEDINGS

- Tartaglia, M.S., DiNardi, S.R., and Ludwig, J.F., *A Comprehensive Review of Sampling and Analytical Methods for Formaldehyde*. March 1984.
- DiNardi, S.R., Tartaglia, M.S. and Ludwig, J.F., *Formaldehyde in the Indoor Environment: An Overview*. February 1984.
- DiNardi, S.R., Tartaglia, M.S. and Ludwig, J.F., *Analytical Methodologies for Formaldehyde: An Annotated Bibliography*. February 1984.

Fourth International Conference on Indoor Air Quality and Climate: Indoor Air '87, Berlin, West Germany, August 1987.

- DiNardi, S.R., *Indoor Air Quality: The United States Regulatory Experience*. Symposium, Indoor Air Quality and Health, October, 1991 Volume I, 269-273.

Proceedings of Indoor Air Quality '86: Managing Indoor Air for Health and Energy Conservation. ASHRAE, Atlanta, Georgia, April 1986.

- DiNardi, S.R., Ludwig, J.F. and Neumann, R., *Monitoring Respirable Suspended Particles in the Indoor Environment*. Volume 1, 554-558.

Third International Conference on Indoor Air Quality and Climate: Indoor Air '84 Stockholm, Sweden, August 1984

- DiNardi, S.R., Ludwig, J.F., Tartaglia, M.S. and Abromovitz, M.W., *A Systems Approach to Monitoring Indoor Air Pollutants*. Volume 4, 175-180.
- Tartaglia, M.S., DiNardi, S.R., and Ludwig, J.F., *A Comparison of Calibration Procedures for an Automated Formaldehyde Analyzer*. Volume 3, 75-79.
- DiNardi, S.R., Abromovitz, M.W., and Tartaglia, M.S., *A Comparison of an Automated Continuous Analyzer with Passive Dosimeters*. Volume 3, 85-88.
- DiNardi, S.R., and Ludwig, J.F., *The Continuous Analysis of Air Infiltration in a Residential Environment*. Volume 5, 465-469.
- Chen, T.L., DiNardi, S.R., and Joseph, F.E., *Worker Participation in the Evaluation of University Environment and Its Safety Programs*. Proceedings of the 10th Symposium of the International Union of School and University Health and Medicine, 1976, Manchester, England.

ABSTRACTS PUBLISHED AND PAPERS PRESENTED

- Calabrese, E.J. and DiNardi, S.R., *Proceedings: Toxic Substances in the Environment Specialty Conference*, New England Section, Air Pollution Association, November 1976.
- DiNardi, S. R. and Callahan, J., *The Validation of A Passive Monitor to Assess Long Term and Low Level Exposures to Formaldehyde*. The American Industrial Hygiene Association Annual Meeting, New Orleans, Louisiana, 2001.
- Nolen, D.W. and DiNardi, S.R., *Visual Field Obstruction Caused by Half-face Air Purifying Respirators*. The American Industrial Hygiene Association Annual Meeting, Anaheim, California, 1994.
- Pasini, J.E. and DiNardi, S.R., *The Penetration of Bloodborne Pathogens Through Protective Clothing*, The American Industrial Hygiene Association Annual Meeting, New Orleans, Louisiana, 1993.
- DiNardi, S.R., *Regulation of Indoor Air Quality: the US Experience*. *Indoor Air Quality and Health*, University of Perugia, Istituto Di Medicina Del Lavoro, Perugia, Italy October 1991.
- Ludwig, J.F., Goss, W. and DiNardi, S.R., *Evaluating the Thermal Performance of an Air-to-Air Heat Exchanger System Installed in a Residential Building*. ASHRAE Proceeding, Winter Meeting, Chicago, Illinois, January 1989.
- DiNardi, S.R., Ludwig, J.F. and Froehlich, S.E. *Measurement of Environmental Tobacco Smoke*. Proceedings of the International Conference on Indoor Air Quality, Tokyo, Japan, November 1987.
- DiNardi, S.R., Ludwig, J.F. and Neumann, R., *Monitoring Respirable Suspended Particles in the Indoor Environment*. Proceedings of the Fourth International Conference on Indoor Air Quality and Climate: Indoor Air '87, Berlin, September 1987.
- DiNardi, S.R., Ludwig, J.F. and Neumann, R., *Exposure Assessment Methodology for Respirable Suspended Particles in the Indoor Environment*. Air Pollution Control Association, New York City, June 1987.
- DiNardi, S.R., Ludwig, J.F. and Neumann, R., *Monitoring Respirable Particles in the Indoor Environment*. American Industrial Hygiene Association, Montreal, May 1987.
- DiNardi, S.R., Tartaglia, M.S. and Ludwig, J.F. *The Continuous Analysis of Indoor Air Pollutants in the DiNardi/Rush-Hampton House*. American Public Health Association, Annual Meeting, Anaheim, CA, November 1984.
- Ludwig, J.F., DiNardi, S.R., and Goss, W.P., *Air-to-Air Heat Exchangers and Indoor Air Quality*. International Congress on HVAC, Copenhagen, August 1985.

The Third International Conference on Indoor Air Quality and Climate: Indoor Air '84 **Stockholm, Sweden, August 1984.**

- Tartaglia, M.S., DiNardi, S.R., and Ludwig, J.F., *Comparison of Calibration Procedures for an Automated Formaldehyde Analyzer*.
- DiNardi, S.R., and Abromovitz, M.W., *Comparison Automated Formaldehyde Analyzer with Passive Dosimeters*.
- DiNardi, S.R., and Ludwig, J.F., *A Systems Approach to the Monitoring of Indoor Air Pollutants*.
- Ludwig, J.F. and DiNardi, S.R., *The Continuous Analysis of Air Infiltration in the Residential Environment*.
- Ludwig, J.F., Goss, W.P. and DiNardi, S.R., *The Effect of an Air-to-Air Heat Exchanger on LAQ*.
- DiNardi, S.R., Ludwig, J.F. and Tartaglia, M.S., *The DiNardi/Rush Hampton House: An Experimental Live-In Laboratory*. 77th Annual Meeting, Air Pollution Control Association, San Francisco, California, July 1984.

American Industrial Hygiene Conference Detroit, Michigan, May 1984.

- DiNardi, S.R., and Abromovitz, M.W., *A Comparison of an Automated Continuous Formaldehyde Analyzer with Passive Dosimeters*.
- DiNardi, S.R., Calabrese, E.J. and Decker, D.D., *Analysis of Chloroform and Other Trihalomethanes in the Residential Environment*.

ABSTRACTS PUBLISHED AND PAPERS PRESENTED

(continued)

Tartaglia, M.S., DiNardi, S.R., and Ludwig, J.F., *A Comparison of Calibration Procedures for an Automated Formaldehyde Analyzer*.

2nd Annual International Symposium: Man and His Environment, Dallas, Texas, February 1984

Calabrese, E.J. and DiNardi, S.R., *The Effects of Ascorbic Acid Supplementation on the Body Burden of Lead in Adult Human Males*.

DiNardi, S.R., and Calabrese, E.J., *Analysis for Trihalomethane in the Domestic Environment*.

DiNardi, S.R., *Analyses Techniques for Ethylene Oxide in the Workplace*, American Industrial Hygiene Conference, Chicago, Illinois, 1979.

DiNardi, S.R., and Chen, T.L., *Worker Attitudes Toward Industrial Safety* American Public Health Association Annual Meeting, Chicago, Illinois, 1975.

PROFESSIONAL PRESENTATIONS

Primer On Occupational/Industrial Hygiene, American Association of Workplace Health Professionals, Savannah, GA , March 2012

Submarine Air Monitoring, AIHA Savannah Local Section, March 2011

Indoor Air Quality Monitoring Issues S&ME Annual Meeting, Charlotte NC, February 2011

Air Quality on Nuclear Submarines Clemson University South Carolina, November 2010

Submarine Atmosphere Health Assessment Program University of South Carolina, November 2009

Submarine Air Quality AIHA Caroline Local Section Meeting, October 2008

Take a Chemist to Lunch (IH version), Tri Section Meeting AIHA, Sturbridge, MA, October 2007

Take a Chemist to Lunch (chemist version), American Chemical Society Meeting, Boston, MA July 2007

Take a Chemist to Lunch (IH Lab version), AIHCE Philadelphia, PA, May 2007

The Strategy for Developing a Nuclear Submarine Atmosphere Sea Trial. Submarine Air Monitoring Air Purification Conference (SAMAP) 2005, Uncasville, CT,

Nuclear Submarine Air Quality, An Update. Western MA AIHA Local Section Springfield, MA, May 2002.

The Validation of Passive Monitors to Assess Long Term and Low Level Exposures to Formaldehyde, presented at the Amer. Industrial Hygiene Conference and Exposition, New Orleans, LA, June 2001

Submarine Atmosphere Health Assessment Program, Invited and presented at Submarine Atmosphere Monitoring and Air Purification, Toronto, Canada, October 2000

Submarine Atmosphere Health Assessment Program, International Biosphere's Conference Baltimore, MD, August 2000

Submarine Atmosphere Health Assessment Program, Navy Environmental Health Center Conference, Virginia Beach, May 2000

Nuclear Submarine Air Quality, An Occupational Hygiene Challenge. Philadelphia AIHA Local Section Princeton, NJ, December 1997

Nuclear Submarine Air Quality, An Occupational Hygiene Challenge. Western Massachusetts AIHA Local Section Springfield, MA, November 1997

Nuclear Submarine Air Quality, An Occupational Hygiene Challenge. Central Pennsylvania AIHA Local Section Harrisburg, PA, October 1997

Primer On Occupational/Industrial Hygiene, New England Occupational Medicine Society, Boston, MA , May 1996

Good Examples of Bad Ventilation Designs. Massachusetts Safety Council of the American Society of Safety Engineers, Marlboro, MA, April 1996

Indoor Air Quality and Ventilation, Richard P. Knight Memorial Lecture, Thirty First Annual Industrial Ventilation Conference, NC State University, Raleigh NC, April, 1989

PROFESSIONAL PRESENTATIONS (*continued*)

- Good Examples of Bad Ventilation Designs.* Connecticut River Valley Section of the American Industrial Hygiene Association, Meriden, CT, March 1989
- Assessing the Concentration of Respirable Suspended Particles Indoors.* American Industrial Hygiene Association, San Francisco, CA, June 1988
- Respirable Suspended Particle Mass Concentration in the Indoor Environment.* Connecticut River Valley Section of the American Industrial Hygiene Association, Meriden, CT, March 1988
- Respirable Suspended Particles in Selected Indoor Locations.* Council in Environmental Health, Tokyo, Japan, November 1987.
- Measuring Respirable Suspended Particles.* Air Pollution Control, Annual Meeting, New York City, New York, June 1987
- Indoor Air Quality Priorities and Problems.* Consumer Federation of America Conference, Washington, DC September 1986
- Airline Cabin Air Quality Assessment.* National Academy of Sciences, Washington, DC, January 1986
- Indoor Air Quality.* New England Section, Air Pollution Control Association, Enfield, CT, October 1985
- Sampling and Analysis for Indoor Air Pollutants.* Connecticut River Valley Section of the AIHA, New Haven, CT, March 1985
- Update on Indoor Air Quality.* Consumer Federation of America, Washington, DC January 1985
- The Changing Definition of the Workplace.* Northeast Regional Industrial Hygiene Conference, Secaucus, NJ, December 1984
- Energy Systems and Indoor Air Quality.* Seminar on Indoor Air Quality in the Home, American Lung Association of Massachusetts, Boston, MA, November 1984
- Formaldehyde, Solvents and Other Organics.* Seminar on Indoor Air Quality in the Home, American Lung Association of Massachusetts, Boston, MA, October 1984
- The Indoor Environment and Cancer.* Symposia on Life-style and Environment, Cooperative Extension Service, Springfield, MA, October 1984
- Analysis of Trihalomethane in the Domestic Shower Environment.* Second International Symposium: Man and His Environment in Health and Disease, Dallas, TX, February 1984
- Indoor Air Quality and Health.* MIT Symposium, Cambridge, MA, January 1984
- Industrial Ventilation Design for Plant Engineers.* W.R. Grace & Company, Cambridge, MA, December 1983
- The Impact of Wood Smoke on Ambient Air.* The Yankee Conference of the National Environmental Health Association Annual, Springfield, MA, September 1983
- Industrial Ventilation Systems: Management's Responsibility.* Digital Equipment Company, Nashua, NH, September 1983
- The Responsibilities of Owners and Operators of Industrial Ventilation Systems.* Eastman Kodak, Rochester, NY, August 1983
- Indoor Air Pollution in Low Infiltration Structures.* Massachusetts Section of the American Society of Heating, Refrigeration and Air Conditioning Engineers, Springfield, MA, August 1983
- Formaldehyde and Other Organics in the Indoor Environment.* National Environmental Health Association Annual Meeting, Norfolk, VA, July 1983
- Energy Conservation and Industrial Ventilation Design.* Northeast Utilities, Hartford, Connecticut, May 1983
- Monitoring Indoor Air Pollutants.* Massachusetts Public Health Association Annual Meeting, Amherst, MA, April 1983
- The Graduate Program in Environmental Health at the University of Massachusetts.* Hofstra University, Hempstead, NY, January 1983

PROFESSIONAL PRESENTATIONS *(continued)*

- Pesticides as Indoor Air Pollutants.* Massachusetts Cooperative Extension Service, Waltham, Massachusetts, January 1982 and February 1982; Connecticut DEP, New Haven, CT, August 1982
- Indoor Air Pollutants in Low Infiltration Residential Structures.* Connecticut Solar Energy Association, Middletown, CT, May 1982
- Health Effects of Indoor Air Pollutants.* RHI, Longwood, FL, May 1982
- Formaldehyde and Other Organics in the Residential Environment.* Connecticut River Valley Section, AIHA, Milford, CT, April 1982
- Polynuclear Aromatic Hydrocarbon Emissions from Residential Coal and Wood Combustion.* NESCAUM, Durham, NH, November 1981
- The Role of the State Health Department in Occupational Health.* Georgia State Health Department, Statesboro, GA, September 1981
- Calibration of Industrial Hygiene Sampling Equipment.* Digital Equip. Company, Hudson, MA, August 1981
- Air Sampling in an Occupational Environment - Ethylene Oxide.* Environmental Systems Engineering, Clemson University, Clemson, SC. March 1980
- Occupational Health Internship.* The American Industrial Hygiene Association Annual Meeting, Chicago, IL, May 1979 (with E.J. Calabrese)
- Analysis Technique for Ethylene Oxide in the Workplace.* The American Industrial Hygiene Association Annual Meeting, Chicago, IL, May 1979
- Ethylene Oxide Levels in the Hospital.* Fall Meeting of the Ethylene Oxide Standards Committee of the Association for the Advancement of Medical Instrumentation, Mount Sinai Hospital, New York City, September 1977
- Worker Attitudes Toward Industrial Safety.* The American Industrial Hygiene Association Annual Meeting, Chicago, IL, 1975 (with T.L. Chen)

PUBLIC SERVICE PRESENTATIONS

- University of Massachusetts News Bureau resident consultant to local and national news media on Indoor Air Quality and Environmental Health
- Regulating Indoor Air Quality: History and Prospects in the USA, Instituto Italiano Per Gli Studi Filosofici, Seminar in Public Health, Naples, Italy, October 1991
- Indoor Air Quality for Industrial Hygienists, Tri section meeting of the American Industrial Hygiene Association, Princeton, NJ, December 1990
- Frequent appearances on various national cable television, local television and radio programs to discuss indoor air quality in residential and commercial buildings, radon detection and mitigation methods for homeowners, the impact of residential wood burning on ambient air quality, and miscellaneous environmental health issues

GRANTS AND CONTRACTS AWARDED

Naval Submarine Medical Research Laboratory, Submarine Atmosphere Health Assessment Program, SUBASE, Groton, CT

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|-----------|--|
| 2007-2009 | Assessment of Exposure to Environmental Tobacco Smoke by Non-Smokers on US Navy Submarines, \$250,000 per year |
| 2002-2014 | Air Quality Monitoring support varied from for \$250,000 - 600,000 per year |
| 2000-2002 | Measuring Ultrafine Particles onboard US Navy submarines \$240,000 for two years. |
| 2000-2001 | Measuring Respirable Suspended Particles onboard US Navy submarines \$60,000 |
| 1997-2001 | Submarine Air Quality Monitoring \$2,800,000 |

GRANTS AND CONTRACTS AWARDED (*other*)

2014-	Validating Triage for Chemical Mass Casualty Incidents - A First Step. Co-Investigator, NIH/NLM, R01LM011648-01A1, \$2,600,000 Co-Investigator U. of South Carolina
1995, 1996	Application of Video Source-Emission Assessment Technology (VSEAT) to Massachusetts Industry With a Special Emphasis on the Dry Cleaning Industry National Environmental Technology for Waste Prevention Institute, \$71,950
1994	Friction loss factors for PVC fittings used in radon mitigation work, Massachusetts Department of Public Health, \$10,683
1994	Developing fan curves used in radon mitigation work, Massachusetts Department of Public Health, \$9,250
1994	Development and Application of a Procedure to Evaluate the Efficiency of Waste Prevention Processes in Massachusetts Industry Utilizing Video Recordings With Real Time Pollutant Data Overlaid. National Environmental Technology for Waste Prevention Institute, \$78,900
1993	A calibration wind tunnel for air velocity measuring instruments used in radon mitigation work, Massachusetts Department of Public Health, \$7,000.
1992	Regional Lead Center Training Program, National Continuing Education Association (NECUA) and Environmental Protection Agency, (with Gilbert & Calabrese), \$250,000
1990	Massachusetts Department of Environmental Quality Engineering; Review and investigation to address specific technical issues raised during the site assignment evaluation for the Ogden Haverhill Facility in Haverhill, Massachusetts, \$12,000
1990	Fellowship in Industrial Hygiene, AIHA Foundation \$4000
1989	Review and investigation to address specific technical issues raised during the site assignment evaluation for the Ogden Haverhill Facility in Haverhill, Massachusetts, Massachusetts Department of Environmental Quality Engineering, \$38,000
1989	Acid Deposition Monitoring Program in Rural Massachusetts, Massachusetts Department of Environmental Quality Engineering and USEPA, \$10,000
1989	AIHA Foundation Fellowship in Industrial Hygiene, \$2000.
1988	Fellowship in Industrial Hygiene, AIHA Foundation, \$2000
1987	Instrument Calibration Research Grant, Environics Incorporated, \$2500.
1987	Fellowship in Industrial Hygiene, AIHA Foundation, \$2000
1986	Fellowship in Industrial Hygiene, W.R. Grace and Companies, \$2500
1984	Fellowship in Industrial Hygiene, AIHA Foundation, \$2000
1984-1987	Assessing the Contribution of Environmental Tobacco Smoke to the Respirable Suspended Particulate Levels in the Indoor Environment, CTR, \$750,000
1983-1991	Fellowship in Industrial Hygiene, Connecticut River Valley Section of the AIHA, \$750 - \$1000 for each year listed
1983	Indoor Air Pollution Research. Rush-Hampton Industries, \$36,000
1982	The Effects of Vitamin C on Heavy Metal Excretion. Hoffmann-LaRoche Drug Company, \$15,000
1982	PCB's in Fish Sediments from the Connecticut River, \$2500
1982	Fellowship, Connecticut River Valley Section, American Hygiene Association, \$600
1981-1982	The Characterization of Polycyclic Aromatic Hydrocarbons in the Indoor Environment. Northeast States for Coordinated Air Use Management (Nescaum), \$8,000
1981	Indoor Air Pollution in Low Infiltration Residences. Rush-Hampton Industries, Longwood, Florida, \$15,000

GRANTS AND CONTRACTS AWARDED (*continued*)

1981	Organics and Drinking Water as a Source of Indoor Air Pollution. Massachusetts Department of Environmental Quality Engineering, \$600
1980-1981	The Characterization of Particulate Organic Material Emitted from Wood and Coal Fired Residential Space Heaters. Northeast States for Coordinated Air Use Management (NESCAUM), \$10,000
1980-1982	Investigation of the Potential for N-Nitrosamine Production on Activated Carbon in Treatment of Drinking Water. US EPA, \$160,000
1978	Contract to assess the impact of a proposed state sanitary code for children's recreation camp in Massachusetts, \$97,000
1977-1982	Traineeship Grant in Environmental Health Services Administration (PHS: A04-AH02532), \$200,000
1974-1976	Traineeship Grant in Environmental Health Services Administration (PHS: A04-AH00794), \$55,129
1975-1977	Allied Health Special Improvement, Sanitarian (PHS: DO1-AH50617), \$157,284.
1975-1980	Project Grant in Environmental Health Services Administration (PHS: A04-AH01457), \$314,164
1972	Mercury Concentration in Fossil Fuels. Faculty Research Grant, Graduate School, University of Massachusetts at Amherst, \$2,000
1971-1975	EPA Air Pollution Training Grant (Co-Author), \$50,000 per year

EXHAUST VENTILATION TRAINING CONSULTANT

2002-	US Naval Surface Warfare Center, Carderock Division, Philadelphia, PA
1997-2002	Thermo Electron Corporation, Waltham, MA
1993	Hahnemann University, Continuing Education, Philadelphia, Pennsylvania
1991	AT&T Network Systems Division, Omaha, NE
1990-2001	National Technical University, Bolder, CO
1990	University of California Extension, Berkeley, CA
1989	AT&T Network Systems Division, Haverhill, MA
1988	GHR Engineering Associates, Lakeville, MA
1981-1999	Eastman Kodak Company, Rochester, NY
1983-1990	AT&T, Corporate Education Center, Hopewell, NJ
1983-1991	W.R. Grace and Company, Lexington, MA
1981-1983	Western Electric Company, Hopewell, NJ
1980-1994	University of North Carolina, NIOSH, ERC.
1982-1990	George Washington University, Division of Continuing Engineering Education
1982, 1990	Digital Equipment Company, Nashua, NH
1994	Murray Ohio Manufacturing, Lawrenceburg, TN
1993	General Electric Corporation, Hooksett, NH
1991	Fenwal Company, MA
1991	D/E Corporation, Leominster, MA
1991	Simpson, Gumpertz and Heger, Cambridge, MA
1990	Digital Equipment Company, Westfield, MA
1990	United States Air Force, Unspecified location
1989	Diamonite Division - W.R. Grace, Lexington, MA
1988	Millipore Corporation. Bedford, MA
1988	Polyfibron Division - W.R. Grace, Lexington, MA

EXHAUST VENTILATION TRAINING CONSULTANT (continued)

1987 NERI Laboratory. Farmington, CT
 1984 E.I. DuPont Company. Newark, DE
 1984 Lederle Laboratories. Spring Valley, NY

OCCUPATIONAL HYGIENE TRAINING CONSULTING

2006- Bartlett Nuclear, Plymouth, MA
 2000-2001 U.S. Coast Guard Headquarters, Washington, D.C.
 1999-2003 U.S. Navy Environmental Health Center, Norfolk VA
 1998- Naval Under Sea Medical Institute, Groton, CT
 1997-1998 Harvard University, School of Public Health, Continuing Education Division
 1987-1994 University of Massachusetts, Division of Continuing Education
 1983-1992 W.R. Grace & Company, Lexington, MA
 1980-2002 University of North Carolina, NIOSH, ERC.

INDOOR AIR QUALITY MANAGEMENT TRAINING

1990-1996 University of California Extension, Irvine, CA
 1992 ITT Corporate Staff, Chicago, IL
 1989 Honeywell Bull Computer, Billerica, MA
 1988-1992 AT&T, Corporate Education Center, Hopewell, NJ
 1984-1991 Digital Equipment Company. Lexington, MA

RESEARCH

2001-2008 Long-term low level chemical weapons detection.
 1997- Nuclear Submarine Atmosphere Health Assessment Program.
 1994-1997 Evaluating waste reduction technologies and worker exposure.
 1992- Developing ventilation design parameters for radon mitigation systems.
 1985-1991 Measuring Respirable Suspended Particles in the Indoor Environment.
 1983- Exposure assessment modeling in traditional and non-traditional work places.
 1976-1991 Sampling and analysis for air pollutants in the indoor environment formaldehyde VOCs, PAHs, environmental tobacco smoke and respirable suspended particles.
 1979-1984 Characterization of hydrocarbons in particulate emissions from residential coal and wood heaters.
 1982-1985 Sampling/analysis of chlorinated hydrocarbons in water supplies and landfill leachate.
 1975-1976 Developed a sampling and analysis protocol for lead in maple syrup.
 1975-1980 Air sampling and analysis protocol for ethylene oxide gas in the workplace.
 1974-1977 Analytical procedures to measure the mercury levels in fossil fuels.
 1974-1975 Establish and direct a program to sample and analyze for ambient inorganic mercury in the State of Massachusetts.
 1973-1975 Air sampling for vapor and particulate forms of inorganic mercury in dental offices.
 1972-1973 Measuring hydrocarbon and carbon monoxide in an underground parking garage.
 1970-1974 Air sampling for ambient levels of organic and inorganic mercury in the Pioneer Valley and its environmental health effects.
 1970-1973 A study of chemical irritants in fabric shop atmosphere, using flame ionizing gas chromatography and their occupational health effects.
 1967-1970 Solvation studies on paramagnetic inorganic ions in non-aqueous solvents.

UNIVERSITY SERVICE

2001-2005	Member, University Emergency Response Committee
1998-2005	Deans and Department Chairs Annual Meeting Planning Committee
1997-1998	NETI Directors' Search Committee
1995-2005	Chairman, Environmental Health Science Department
1994-2005	Chair, University Chemical Hazards Committee
1993-1995	Member, Council on Education for Public Health, Self Study Committee
1993	Member, Long Range Planning Committee, School of Public Health
1993	Member, Council on Education for Public Health, Self Study Committee
1993	Member, University Chemical Hazards Committee
1991-1995	Program Chair, Environmental Health Science
1991	Chair, Continuing Evaluation Committee, School of Public Health
1990-1991	Chair, Council on Education for Public Health, Self Study Committee
1986-1988	At-Large Member, Executive Council Division of Public Health
1983-1984	Member, Division of Public Health Personnel Policy Committee
1983-1984	Member, School of Health Sciences Personnel Committee
1982-1988	Member, Chancellor's Working Group on Economic Development
1981-1983	Member, Division of Public Health Personnel Committee
1981-1982	Chair, Task Force on Division of Public Health and Industry
1975-1979	Chairperson of the Environmental Health Science Program
1975-1977	Chairperson of the Campus Program Planning Subcommittee
1975-1976	Member of the Program and Budget Council
1974-1976	Faculty Senate Representative from the School of Health Sciences
1973-1977	Member of the Program and Budget Council of the Faculty Senate
1973-1976	Member, Dean's Advisory Committee of the School of Health Sciences
1973-1976	Scheduling Representative for the Division of Public Health
1972-1973	Established and chaired the Student/Faculty Relations Committee
1971-1975	Division of Public Health Representative to the Air Pollution Training Grant jointly administered with the School of Engineering
1971-1975	Established and chaired the Curriculum Committee for Public Health
1971-1973	Chairperson, Environmental Health Program Area Committee

UNIVERSITY TEACHING EXPERIENCE

ENV-HLTH 565 - Environmental Health Practice (online) ***three credit hours***

Concepts of control methods used by environmental health and engineering practitioners. Topics include air, water, wastewater, solid wastes, food sanitation, occupational health, vector control, housing, and accident control measures.

ENV-HLTH 590G – The Science of Terrorism ***three credit hours***

An on line course to educate graduate students that are practicing health professional s to management the myths and reality surrounding chemical, biological, radiological, and environmental (CBRE) threats. Course content provides the science background, skills and knowledge necessary to respond appropriately to CBRE threats, to fight fear associated with ignorance, medically manage CBRE casualties, and to use life long learning skills to manage new treats as they occur.

UNIVERSITY TEACHING EXPERIENCE *(continued)*

ENV-HLTH 497B - Terrorism-Ready.

three credit hours

This web enhanced course prepares undergraduates to deal with the myths and reality surrounding chemical, biological, radiological and environmental (CBRE) threats. Course content provides the skills and knowledge necessary to respond appropriately to CBRE threats, to fight fear associated with ignorance and to use life long learning skills to live securely in an uncertain world.

ENV-HLTH 669 - Health and Safety in the Research Laboratory

one credit hour

The objective of this course is to teach laboratory personnel to handle chemicals and physical agents in a healthy and safe manner.

ENV-HLTH 591A Indoor Environmental Quality

three credit hours

An introduction to and a survey of the fundamentals of indoor environmental quality (IEQ). This course provides a practical understanding of how to respond to IEQ problems and involves an in-depth discussion of its evaluation and control. Emphasis is on developing knowledge, techniques and skills to identify problems. This enables the recognition of problems to develop expertise in interpreting information to improve IEQ.

ENV-HLTH 677P - Case Studies for Industrial Hygiene Practice

three credit hours

A case study of typical industrial hygiene problems encountered in private industry, consulting firms, government, and university settings. Students apply industrial hygiene principles and review the problem, define the problem, propose and defend a workable solution. Critical issues in worker health and safety in small business will be discussed in detail.

ENV-HLTH 672 - Principles of Industrial Ventilation Design

three credit hours

Surveying the needs for workplace ventilation, dilution ventilation, and local exhaust. A review of the fundamental principles of the physics and chemistry of gases, aerosols and particle behavior followed by an intensive study of system design; hood, duct and fan selection and system trouble shooting using the ACGIH Industrial Ventilation Manual.

ENV-HLTH 572 - Industrial Hygiene Laboratory

three credit hours

Methodological techniques used to evaluate the industrial environment for toxic substances and physical agents that effect the worker's health. The collection and detection of gases, vapors and aerosols as well as noise and heat stress are considered. Calibration techniques are emphasized throughout the course.

ENV-HLTH 564 - Principles of Occupational Health

three credit hours

Provides an introduction to and an overview of the fundamentals of industrial hygiene. The OSHA Act, standards and standards setting, recognition of chemical and physical industrial health hazards, principles of sampling and ventilation, fundamentals of respiratory protection and the walk-through survey are discussed.

ENV-HLTH 574 - Introduction to Aerosol Science.

three credit hours

A study of the static's and mechanics of aerosols of relevance to the occupational and ambient environments. Fundamentals of particle characteristics and particle behavior including the theory and selection of particle sampling instruments will be included. Prerequisites, one year each of university mathematics, chemistry, and physics and Pub HI 577 and Pub HI 573.

ENV-HLTH 672X - Principles of Industrial Ventilation Design.

three credit hours

This course was modified to teach to off campus students enrolled in Masters degree programs in the School of Engineering, Video Instructional Program. This course is also offered through the National Technical University (NTU), Bolder Colorado.

UNIVERSITY TEACHING EXPERIENCE *(continued)*

PUBHL 773 - Air Sampling and Analysis.

three credit hours

Applications of fluid mechanics and gas laws to measurement and collection of gaseous atmospheric pollutants including those that are injurious to health. Manual and automated analysis of these pollutants by electrochemical, spectrophotometric and gravimetric techniques.

PUBHL 590A - Environmental Health Instrumentation Laboratory.

three credit hours

The application of chemical instrumentation to clinical and environmental laboratory analysis. The techniques to be covered include ultraviolet, visible, infrared, atomic absorption, and fluorescence spectrophotometry and gas-liquid chromatography.

PUBHL 690C - Toxic Substances in the Workplace

three credit hours

A practically oriented course designed to expose students to methods of assessing hazards in the workplace. Classroom discussions will be supplemented by frequent field trips to different occupational settings in order to obtain first hand experiences of different industrial hazards and how industry attempts to deal with each situation.

PUBHL 590R - Environmental Health Chemistry.

three credit hours

Studies the variety of complex chemicals in the environment and assesses the health impact of these chemicals on the human population. Emphasis is placed on toxic substances in the ambient environment and the work place including their carcinogenic, mutagenic and teratogenic properties. Examples of toxic chemicals will be drawn from current literature.

PUBHL 360/660 Principles of Environmental Health

three credit hours

The application of scientific knowledge to the control of man's environment as applied to human health. A consideration of the physical, chemical and biological aspects of the air, water, land, food, housing, and occupational environments.

PUBHL 260/560 - The Environment and Public Health

three credit hours

The relationship of public health to environmental problems in air, water, pesticide, solid waste, noise pollution, housing, food, and hospital sanitation. Food borne illness, population planning, nuclear power utilization, and epidemiology of accidents are considered. Also considered are what the environment could be and the technological, social, economic and political resources needed to effect an improvement.

POST-DOCTORAL TECHNICAL EDUCATION

The University of Minnesota, School of Public Health:

1979	Epidemiology of Cancer.	3 credit hours.
1979	Occupational Epidemiology.	3 credit hours.
1979	Advanced Statistical Methods in Epidemiology.	3 credit hours.
1978	Introduction to Biostatistics.	3 credit hours.
1978	Introduction to Epidemiology.	3 credit hours.

The University of North Carolina, School of Public Health:

1979	Aerosol Science.	3 credit hours.
1979	Aerosol Science Laboratory.	3 credit hours.
1979	Industrial Hygiene Engineering Control.	3 credit hours.
1979	Industrial Hygiene Engineering Control Lab.	1 credit hour.
1979	Applied Physiology and Toxicology	3 credit hours.
1980	Industrial Hygiene Laboratory	3 credit hours.
1980	Industrial Hygiene Practice.	3 credit hours.
1980	Industrial Medicine.	3 credit hours.
1980	Occupational Health Seminar.	1 credit hour.

SHORT COURSES AND WORKSHOPS

1996	Using Microsoft Access Data base Management Software	1 day
1995	Mathematical Models for Occupational Exposure Assessment (Auditor), AIHCE, Kansas City, MO	1 day
1993	Mathematical Models for Occupational Exposure Assessment, AIHCE, New Orleans	1 day
1988	Introduction to Aerosol Science. University of Minnesota, Minneapolis	5 days
1973	Harvard University: Air Pollution & Environmental Health	4 weeks
1972	GC and AA Spectrophotometry. Perkin Elmer Corporation Norwalk, CT.	3 days

University of North Carolina at Chapel Hill, School of Public Health:

1991	ABIH certification review	4 CEU
1979	Occupational Safety and Health Summer Institute Sponsored by the OSHERC.	7 CEU
1980	Sampling/Evaluating Airborne Asbestos Dust NIOSH 582	4 CEU
1980	Advanced Industrial Ventilation Design.	4 CEU
1979	Basic Industrial Ventilation Workshop.	3 CEU

United States Environmental Protection Agency:

1986	Radon Reduction Techniques in Detached Houses.	3 CEU
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POST-DOCTORAL ADMINISTRATIVE EDUCATION

1993	Workshop for Department Chairs. Sponsored by the Council of Presidents, New England Land-Grant Universities.	
1993	Dealing with conflict and confrontation, CareerTrack	1 day
1992	Curriculum development in public health. A five-day workshop sponsored by the Center for Disease Control to enhance the curriculum development skills among school of public health faculty.	

CONTINUING EDUCATION PRESENTATIONS

2002	US Naval Surface Warfare Center, Carderock, Philadelphia, PA	(3 days)
2001	U.S. Navy Environmental Health Center, Basic Exposure Modeling	(2 days)
2000	U.S. Coast Guard Training Center, Basic Exposure Modeling	(2 days)
1999	U.S. Navy Environmental Health Center, Basic Exposure Modeling	(2 days)
1998	U.S. Navy Undersea Medical Institute: What is Occupational Hygiene?	(0.5 day)
1997	Harvard School of Public Health, C.I.H. Review	(1 day)
1981-1991	George Washington University, Division of Continuing Engineering Education. Industrial Ventilation Design	(3 days)
1980, 1981	University of South Carolina, College of Engineering, Continuing Engineering Education. Ventilation Design for Industrial Applications	(3 days)
1980	University of Toledo, Continuing Education Center Ventilation Design for Industrial Application	(3 days)
1980	Old Dominion University, School of Engineering	(3 days)
1980	North Carolina College and University Safety Association Ventilation Design for Industrial Applications	(3 days)
	Industrial Respiratory Protection	(2 days)
1980	Virginia Polytechnic Institute, College of Engineering Ventilation Design for Industrial Applications	(3 days)

CONTINUING EDUCATION PRESENTATIONS (*continued*)

University of Massachusetts, Division of Continuing Education

1991,1993	Indoor Air Quality in Schools	(1 day)
1989-1993	Basic Industrial Hygiene	(5 days)
1987-1988	Radon Reduction Techniques for Detached Houses	(3 days)
1986-1987	Environmental Quality Issues in Real Estate Transactions	(1 day)
1981-1992	Industrial Ventilation Design	(5 days)

University of North Carolina at Chapel Hill: NIOSH - Educational Resource Center

1980-2010	Thirty Winter and Summer Institutes at various venues	(5 days)
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Industrial Respiratory Protection

1980	American Cyanamid, Jekyl Island, GA	(2 days)
1980	NC College and University Safety Association, Raleigh, NC	(2 days)

Industrial Hygiene Certification Review

1991-1996	A.B.I.H. Certification Review (2 sessions per year)	(5 days)
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American Industrial Hygiene Association Professional Development Courses

2002	Industrial Hygiene Calculations (PDC-104), San Diego, CA	(1 day)
2001	Industrial Hygiene Calculations (PDC-104), New Orleans LA	(1 day)
2000	Industrial Hygiene Calculations (PDC-104, 403), Orlando, FL	(2 days)
1999	Industrial Hygiene Calculations (PDC-104, 403), Toronto, Canada	(2 days)
1998	Industrial Hygiene Calculations (PDC-104, 403), Atlanta, GA	(2 days)
1997	Industrial Hygiene Calculations (PDC-104, 403), Dallas, TX	(2 days)
1996	Industrial Hygiene Calculations (PDC-742), Washington, DC	(1 day)
1995	Industrial Hygiene Calculations (PDC-400), Kansas City, MO	(1 day)
1994	Industrial Hygiene Calculations (PDC-25), Anaheim, CA	(1 day)

IN-HOUSE EDUCATION PROGRAMS

Industrial Exhaust Ventilation Design

2002	Carderock Division, Naval Surface Warfare Center, Philadelphia, PA	(3 days)
1999	Eastman Kodak Corporation, Rochester, NY	(5 days)
1982-1990	Eastman Kodak Corporation, Rochester, NY	(5 days)
1984-1992	AT&T Corporation, Hopewell NJ, Omaha, NB, Haverhill, MA	(5 days)
1982, 1983	Western Electric Corporation, Hopewell, NJ	(5 days)
1981	American Cyanamid Corporation, Bound Brook, NJ	(2 days)
1984	E.I. DuPont Company, Wilmington, DE	(2 days)
1984	Lederle Laboratories, Pearl River, NY	(3 days)
1983	Digital Equipment Company, Nashua, NH.	(1 day)
1983-1990	W.R. Grace and Company, Cambridge, MA	(3-5 days)

IN-HOUSE EDUCATION PROGRAMS

Indoor Air Quality in the Office Environment

1989	Honeywell Bull Computer, Billerica, MA	(1 day)
1988	Digital Equipment Company Nashua, NH	(1 day)

IN-HOUSE EDUCATION PROGRAMS *(continued)*

Basic Industrial Hygiene

1988, 1990 W.R. Grace, Lexington, MA (5 days)

State and Regulatory Agencies

1997	Massachusetts, DEP, Indoor Air Quality in Schools	(0.5 day)
1988	UFFI Removal Certification, MA-DPH, Four offerings	(3 days)
1986, 1987	Indoor Air Quality, NECEPH, Two offerings	(2 days)
1985	CT-DPH, Hartford, CT	(2 days)
1982	Chemistry for Air Pollution Officials DEQE, Boston, MA	(1 day)
1980	The New PM-10 Standard, NESCAUM, Hartford, CT	(1 day)

OTHER QUALIFICATIONS

DEPARTMENT OF DEFENSE SECRET CLEARANCE (SAIC, Leidos)

COMPUTER HARDWARE AND SOFTWARE SKILLS

INSTRUCTIONAL MANAGEMENT SYSTEMS

- WebCT, WebCT Vista
- Prometheus

SOFTWARE: Microsoft Windows 8, 7 Vista, 2003 XP, 98, 95, Windows NT, Windows 3.10/3.11

- Microsoft Office Suite Versions 2 through 2013
- Word, Excel, PowerPoint, Publisher, and Access
- Crystal Ball Modeling Software, Quicken, Netscape, Eudora, Outlook, Internet Explorer, etc.
- NIOSH, OSHA, EPA Manuals of Analytical Methods
- Digital cameras editing software

HARDWARE

- IBM Compatible computers from 8086 through Intel Quad Core I7
- Digital cameras and related editing software

CHEMICAL LABORATORY INSTRUMENTS

- Infra-red, visible, and ultraviolet spectrometers, Gas chromatographs with flame ionization detectors, electron capture detectors, and thermal conductivity detectors

INDUSTRIAL HYGIENE MEASURING EQUIPMENT

- Too numerous to list

AUDIO VIDEO PRESENTATION HARDWARE

Revised 1 May 2015