

Joe C. Spurgeon

JOE C. SPURGEON, Ph.D., MBA
Certified Industrial Hygienist

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EDUCATION

- MBA Real Estate Finance and Entrepreneurial Management
 The Wharton School; University of Pennsylvania, Philadelphia, PA.; 1981
- Ph.D. (A) Environmental Health, Graduate School of Public Health
 (B) Analytical Chemistry, Graduate School of Chemistry
 Air Pollution Fellow, University of Pittsburgh, Pittsburgh, PA.; 1972
- B.S. Major: Chemistry Minor: Mathematics
 Indiana State University, Terre Haute, Ind.; 1968

AREAS OF EXPERTISE

Microbial investigations [mold, allergens, Legionella]; Sick Building Syndrome; Indoor Air Quality

- Contents, US Air Flight 1549 [“Miracle on the Hudson”]
- 40-story office tower, New Orleans, LA
- Hotels: Anaheim, CA, Garden Grove, CA; Santa Monica, CA
- University library, Orange, CA
- Recording studios, LA (three)
- NOAA headquarters, 3 office towers, Silver Spring, MD
- US EPA Region VIII ESD Laboratory, Golden, CO
- University of North Carolina, Chapel Hill, NC
- US DOT headquarters building, Wash., DC
- US EPA headquarters building, Wash, DC
- Legionella response, SSA Western Process Center, Richmond, CA
- Day care centers & Pre-schools
- Erin Brokovich residence, Agoura Hills, CA. [featured on “48 Hours”]
- 20 residences in metropolitan Houston, TX.
- 80-unit apartment complex, Bakersfield, CA
- 100-unit condominium complex, Los Angeles, CA
- 200-unit condominium complex, Santa Ana, CA.
- Frank Lloyd Wright house, Virginia Beach, VA
- Gerald Ford residence, Fairfax, VA

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Hospitals and healthcare facilities: nosocomial infections and chemical surveys

- Research hospital, Legionella & CCR Title 22 water quality survey. Los Angeles, CA
- Community hospital, Legionella & CCR Title 22 water quality survey, Simi Valley, CA
- Community hospital, 2-year construction project, Redlands, CA
- Research hospital, nosocomial infections, Los Angeles, CA
- 80-bed elderly health care facility, mold remediation, Claremont, CA
- Research hospital, construction project, Los Angeles, CA

Assessment of exposure hazards in the workplace, the home, and the environment

- Wildfire smoke, residential properties, Bastrop, TX
- Research hospital, exposure compliance sampling, Los Angeles, CA
- CDC/ATSDR, Atlanta, GA.: Performed health assessments on populations living near Superfund sites in the western US
- Developed and implemented an exposure assessment program for chemical, physical, and biological hazards in ten regional US EPA laboratories
- Residential Initiative on Indoor Air Quality: Manager, US EPA
- Combustion Toxicology Laboratory: Manager, FAA Research Center
- Lead Paint Poisoning Program: Research Chemist, NBS/NIST

ADDITIONAL TRAINING

Toxicology:

Inhalation Toxicology (Lovelace Research Institute)
 Toxicology of Heavy Metals (UND)
 Essentials of Toxicology (NIH/NCI Graduate School)

Exposure Assessments:

Risk Assessment Symposium; AIHA, Nashville, TN., 2000
 Risk Assessment Methods: A Tool Box; AIHA, PDC # 442, 1999.
 Workplace Exposure Assessment (Workbook) ; PDC # 440, Atlanta, GA., 1998.
 Exposure Assessment Strategies and Statistics; AIHA PDC # 702, Houston, TX., 1997.
 Basic Exposure Assessment Modeling; UNC/AIHA Summer Institute, Norfolk, 1997.
 Intermediate Exposure Assessment Modeling; UNC/AIHA Summer Institute, 1997.

Laboratory Analysis of Fungal Spores:

(Advanced) Microscopic Identification of Fungal Spores (McCrone)
 Identification of Cultured Fungi (McCrone)
 (Intermediate) Microscopic Identification of Fungal Spores (McCrone)
 (Introductory) Identification of Fungal Spores (McCrone)

Indoor Air Quality Courses:

Construction Failure Investigations (RestCon)
 Building Sciences Clinic (Lstiburek, Straube)
 Statistical Methods for Mold Air Sampling Data (AIHA)

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Air Sampling for Mold - A Litigation Perspective (AIHA)
 Moisture Control In Construction (Lstiburek)
 Investigating and Assessing Microbiological Contamination in the Indoor Environment
 Developing Remediation Strategy and Writing Specifications for Mold Abatement
 Microbial IAQ Problems in Hot and Humid Climates
 Strategies for Conducting Microbial IAQ Investigations (AIAQC)
 Microorganisms in Indoor Air (AIHA)
 Aerobiology of Indoor Environments (Harvard)
 Microbiological Procedures for Indoor Air Quality Surveys (MAEHRC)
 Microbiological Sampling and Assessment of Indoor Environments (MAEHRC)
 Advanced Instrumentation and Sampling Methodology for IAQ (MAEHRC)
 Reading and Understanding Blueprints from an IAQ Perspective (MAEHRC)
 HVAC System Performance and Indoor Air Quality (MAEHRC)
 How to Conduct an Indoor Air Quality Investigation (AIHA)

Health Care Facility Courses

EH&S for Healthcare, PDC 404, AIHce, Philadelphia, PA (06-03-07)

Indoor Air Quality Conferences:

11th International Conference on IAQ and Climate; ISIAQ, Austin, TX; June, 2011
 American Industrial Hygiene Association Conference; Portland, OR; May, 2011
 American Industrial Hygiene Association Conference; Denver, CO; June, 2010
 American Industrial Hygiene Association Conference; Minneapolis, MN; June, 2008
 UCLA; Mold: Current State of the Medical and Environmental Science 2008; 02/26-28/08
 American Industrial Hygiene Association Conference; Philadelphia, PA; June, 2007
 ASTM Conference: Bringing Science to Bear on Moisture and Mold in the Built Environment;
 Boulder, CO; July, 2006
 American Industrial Hygiene Association Conference; Chicago, IL; May, 2006
 American Industrial Hygiene Association Conference; Anaheim, CA; May, 2005
 American Industrial Hygiene Association Conference; Atlanta, GA; May, 2004
 Mold Remediation: The Quest for National Consensus, ACGIH, Orlando, FL; Nov., 2003
 5th International Conference on Bioaerosols; Saratoga Springs, N.Y., Sept., 2003
 Environmental Mold Symposium; AIHCE, Dallas, TX, May, 2003
 Indoor Air Quality Symposium; AIHCE, Dallas, TX, May, 2003
 American Industrial Hygiene Association Conference; Dallas, TX, May, 2003
 9th International Conference on IAQ and Climate; ISIAQ, Monterey, CA, June, 2002
 American Industrial Hygiene Association Conference; San Diego, CA, May, 2002
 Indoor Air Quality Conference; AIAQC, Orlando, FL, April, 2002

PROFESSIONAL WORK EXPERIENCE

Bayshore Environmental, Inc.; Placentia, CA.; Consultant, microbial indoor air quality

Pacific Health & Safety, Inc.; Irvine, CA; Manager of Microbial Services; residential and commercial

US Public Health Service, Division of Federal Occupational Health; Washington, DC; Contract Consultant, CIH; major IAQ investigations and EPA Laboratory Exposure Assessment Program

US Environmental Protection Agency, Indoor Air Division; Washington, DC.; Project Manager: Residential Initiative on Indoor Air Quality; Environmental Scientist

Centers for Disease Control and Prevention, Agency for Toxic Substances & Disease Registry, Atlanta, Ga.; Division of Health Assessment & Consultation; Environmental Health Scientist

Social Security Administration, Baltimore, Md.; Division of Environmental Protection and Safety, Environmental Protection and Safety Branch; Senior Industrial Hygienist

Baywind Associates, Inc.; Baywinds Realty, Inc., Chesapeake, VA; licensed Class A general contractor, residential builder

Bayshore Environmental Laboratory, Inc., Chesapeake, VA; Asbestos laboratory; consultant in asbestos and lead-based paint

Federal Aviation Administration (DOT), National Technical Center, Atlantic City, N.J.; Aircraft Safety Division, Fire Safety Branch; Manager, Combustion Toxicology Laboratory.

National Institutes of Science & Technology (NBS), Gaithersburg, Md.; Lead Paint Poisoning Program; Research Chemist; internal consultant to HUD on toxic metals in coatings

ASBESTOS LICENSES AND TRAINING (not current)

Abatement Supervisor; Project Designer; Project Monitor; Inspector/Management Planner
NIOSH 582: Microscopy of Airborne Asbestos Samples;
McCrone PLM: Microscopy of Bulk Asbestos Samples.

INSTRUCTOR

- Using qPCR in Mold Investigations, IAQA Workshop, Santa Ana, CA, November 8, 2008.
- Elements of a Residential Mold Investigation, IAQA Workshop, Fremont, CA, June 21, 2006.
- Sampling Methods for Mold, IAQA Workshop, Fremont, CA, June 21, 2006
- Conducting Mold Investigations as Exposure Assessments; J. Spurgeon, F. Wu., AIHce, PDC # 408, Chicago, IL; May 14, 2006.
- How One Expert Witness Conducts Mold Investigations; J. Spurgeon, F. Wu. Environmental Information Association Conference, Phoenix, AZ, March 25, 2006.
- An Overview of Sampling Methods for Fungal Contaminants; AIAQC Workshop; Skirball Center, Los Angeles, CA; July 16, 2003.
- Inspection and Sampling of Residential Properties for Mold and Allergens; Santa Ana, CA, December 12-14, 2002; April 17-19, 2003; Fullerton, CA, July 25-26, 2003 [CRMI Certification]
- How One Expert Witness Conducts Mold Investigations; J. Spurgeon. Environmental Information Association Conference, Savannah, GA, March 23, 2003.
- An Exposure Assessment Strategy for Laboratories; AIHce, PDC # 301, Orlando, FL., 2000.
- Asbestos Abatement Worker/Supervisor Course; EPA approved, 1990 - 93.
- Lead-paint Abatement Worker/Supervisor Course; 1990 - 93.
- Investment Real Estate; Century 21 Real Estate of the Mid-Atlantic States, 1984 - 89.

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PEER REVIEWED MOLD PUBLICATIONS

Spurgeon, J.; A Comparison of Replicate Field Samples Collected with the Bi-Air, Air-O-Cell, and Graesby-Andersen N6 Bioaerosol Samplers; *Aerosol Science & Technology*, 41(7):761-769, 2007.

Spurgeon, J.; A New Filter Cassette for the Direct Microscopic Examination of Airborne Fungal Spores; *Aerosol Science & Technology*, 40(11):1025-1033, 2006.

Spurgeon, J.; A Sampling Method for Comparing Fungal Concentrations in Carpets; *AIHAJ*, 64(6):842-845, Nov/Dec, 2003.

Spurgeon, J.; A Method for Detecting Fungal Contaminants in Wall Cavities; *AIHAJ*, 64(1):40-47, Jan/Feb., 2003.

PEER REVIEWED TECHNICAL PRESENTATIONS

A New Method for Detecting Low Concentrations of Airborne *Aspergillus* in HEPA_Filtered Hospital Air. J. Spurgeon, K. Lin, G. Spahr; ISIAQ, Paper 270, June 7, 2011, Austin, TX.

A comparison of The Air-O-Cell Slit Impaction Cassette and Bi-Air Filter Cassette for the Collection of Total Airborne Fungal Spores. J. Spurgeon; AIHce 2008, PO 128,, June 4, 2008, Minneapolis, MN

Differentiating between Clean and Moldy Indoor Environments Based on Airborne *Asp/Pen* Spore Concentrations. J. Spurgeon, D. Bridge, M. Krotenberg; AIHce 2008, PO 128, June 4, 2008, Minneapolis, MN

Concentrations of Airborne *Asp/Pen* Spores in Critical Care Areas of Hospitals as Measured by Spore Counts and qPCR. J. Spurgeon, K-T Lin, G. Spahr; AIHce 2008, PO 110, June 2, 2008, Minneapolis, MN

Interpreting indoor Concentrations of Airborne Mold; J. Spurgeon; Session: Mold Exposure Assessment and Evaluation: PO 104, Paper 26; AIHCE, Anaheim, CA, May 23, 2005.

Field Performance of the Bi-Air Cassette for Collecting Airborne Mold Spores; J. Spurgeon; Indoor Air Quality: PS-404, Paper 307; AIHCE, Anaheim, CA, May 24, 2005.

A Method for Sampling Fungal Contaminants in Carpets and Soft Surfaces; J. Spurgeon; Mold Sampling Methods, Podium Session 122, Paper 156; AIHCE, Dallas, TX, May 14, 2003.

A Method for Collecting TWA Samples of Airborne Fungi and Fungal Spores; J. Spurgeon; Mold Sampling Methods Podium Session 122, Paper 159; AIHCE, Dallas, TX, May 14, 2003.

A Method for Sampling Fungal Spores and Culturable Fungi in Wall Cavities: J. Spurgeon; PS 401, Paper 247; AIHCE, Dallas, TX, May 12, 2003.

Analysis of Bioaerosol Data Using Exposure Assessment Statistics; J. Spurgeon. Roundtable 249: Forum on Bioaerosol Sampling; AIHCE, Orlando, FL., May 25, 2000.

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A Method for Assessing Exposures in Chemical Laboratories; J. Spurgeon. Paper 313, Technical Session 140: Laboratory Health and Safety; AIHCE, Orlando, FL., May 25, 2000.

TECHNICAL PRESENTATIONS

Correlations Between the Level of Indoor Airborne Fungal Spores and Surface Mold Growth; F. Wu, S. Huang, J. Spurgeon; IAQA 12th Annual Meeting, Ft. Worth, TX, Feb. 24-26, 2009.

Using ERMI and qPCR in Mold Investigations; J. Spurgeon; IAQA Workshop, Irvine, CA, November 8, 2008.

Sampling Time: The “New” Concept in Collecting and Interpreting Airborne Mold Samples; J. Spurgeon, Harris Martin Mold Conference, San Francisco, CA, Sept. 21, 2007.

Comparison of Indoor and Outdoor Airborne Spore Concentrations in Residential Buildings; J. Spurgeon, D. Bridge, M. Krotenberg; ASTM Conference: Bringing Science to Bear on Mold, Boulder, CO, July 28, 2006.

The Interpretation of Microbial Data; J. Spurgeon; Environmental Information Association Conference, Phoenix, AZ, March 26, 2006.

Sampling Wall Cavities for Hidden Mold; J. Spurgeon; Round Table 211: Detecting Hidden Mold in Water Damaged Buildings; AIHCE, Atlanta, GA, May 11, 2004.

Mold and the Remediation Contractor; J. Spurgeon; Environmental Information Association, Orange County Chapter; June 18, 2002.

Assessment of Microbial Contaminants; J. Spurgeon. Mealeys Mold Litigation Conference; Philadelphia, PA., Feb. 8, 2001.

An Overview of the AIHA Exposure Assessment Strategy; Spurgeon, J., Kretchman;. US EPA SHEMD Conference; Washington, DC; July 22, 1998.

The US EPA Laboratory Exposure Assessment Program; Bushta, D., Moring, K., Spurgeon; J. Applied Workshop: Occupational and Environmental Exposure Assessments; ACGIH/NIOSH; Chapel Hill, NC; February 24, 1998.

Developing Survey Strategies for Multiple Facilities; Reddinger, C., Spurgeon; J. AIHA Northern California Section Symposium - Reliable Exposure Assessments: How Much Is Enough?; Palo Alto, CA.; March 25, 1998.

The US EPA Laboratory Exposure Assessment Program; Spurgeon, J. US DOE Symposium - Worker Exposure during Site Remediation; Columbia, MD.; September 10, 1997.

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MOLD PUBLICATIONS

Spurgeon, J.; An Opinion on Assessing the Health Effects of Mold; COLUMNS-Mold, HarrisMartin Publishers, Berwyn Park, PA; p. 4, February, 2007.

Spurgeon, J., Bridge, D., Krotenberg, M.; An Alternative Method for Interpreting Airborne Spore Concentrations. Micro Examiner, Aemtek, Inc., April, 2006.

Spurgeon, J.; Do the New York City Mold Remediation Guidelines Protect Maintenance Personnel?; COLUMNS-Mold, HarrisMartin Publishers, Berwyn Park, PA; Vol. 4, p. 4, Nov., 2004.

Spurgeon, J.; Questions Everyone Should Ask Before Hiring a Mold Consultant; Environmental Health & Safety Solutions, Olney, MD., Vol. 5, # 2, p. 4; March/April, 2004.

Spurgeon, J.; The Interpretation of Airborne Data: Parts 1, 2, 3 and 4; COLUMNS-Mold, HarrisMartin Publishers, Berwyn Park, PA; Vol. 4, March/April/May/June, 2004.

Spurgeon, J.; Sampling Carpets and Soft-surfaces for Fungal Contaminants: Sampling and the Clean v. Discard Dilemma; COLUMNS-Mold, HarrisMartin Publishers, Berwyn Park, PA; (Vol. 3, # 2, p. 4, Dec., 2003).

Spurgeon, J.; The Collection and Interpretation of Wall Cavity Samples; COLUMNS-Mold, HarrisMartin Publishers, Berwyn Park, PA; (Vol. 3, # 1, p. 58; Nov., 2003).

Spurgeon, J.: Sampling for Mold Remediation; Indoor Environment Connections, Vol 3, # 11 (November, 2002); Indoor Environment Communications, Kensington, MD.

PREVIOUS TECHNICAL PUBLICATIONS

Ion Chromatographic Analysis of Thermal Decomposition Products of Aircraft Interior Materials; J. Spurgeon, L. Speitel; Ion Chromatographic Analysis of Environmental Pollutants, Vol. 2, Edited by J. Mulik, E. Sawicki; Ann Arbor Science Publishers, 1979.

A Procedure for Electronically Monitoring Animal Response Parameters Using the Rotating Wheel; J. Spurgeon, R. Feher; J. Combustion Toxicology, Vol. 6, p. 198, August, 1979.

Laboratory Fire Tests of Cabin Materials Used in Commercial Aircraft; C. Sarkos, J. Spurgeon, E. Nicholas; J. of Aircraft, 16(2), 78, 1979.

The Correlation of Animal Response Data with the Yields of Selected Thermal Decomposition Products for Typical Aircraft Interior Materials; J. Spurgeon; Report FAA-RD-78-131, November, 1978.

Industrial Hygiene Survey: Irritant Analysis in the Nickel/Cadmium Battery Charging Facility in Building 301; J. Spurgeon, L. Speitel, S. Sternik; Report NA-136-LR, May, 1978.

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Modification of the CAMI Rotating Animal Wheel for Use in Full-Scale Fire Tests; J. Spurgeon, R. Feher; Report FAA-NA-22-LR, April, 1978.

A Preliminary Comparison of Thermal Decomposition Products of Aircraft Interior Materials Using the NBS Smoke Chamber and the Combustion Tube Furnace; J. Spurgeon, L. Speitel, R. Feher; Report FAA-RD-77-123, March, 1978.

Industrial Hygiene Survey: The Thermal Stability and Decomposition Products of a Neoprene Foam Pipe Insulation; J. Spurgeon, L. Speitel; Report NA-131-LR, February, 1978.

Fire Testing of Cabin Materials Used in Commercial Aircraft; C. Sarkos, J. Spurgeon, E. Nicholas; Report FAA-NA-77-53, September, 1977.

Thermal Decomposition Products of Nylon Upholstery Fabric; J. Spurgeon; Report FAA-NA-129-LR, August, 1977.

Oxidative Pyrolysis of Aircraft Interior Materials; J. Spurgeon, L. Speitel, R. Feher; J. Fire & Flammability, Vol. 8, p. 349, July, 1977.

Thermal Decomposition Products of Aircraft Interior Materials; J. Spurgeon, L. Speitel, R. Feher; Report FAA-RD-77-20, April, 1977.

Determination of Polynuclear Aromatic Hydrocarbons by Anodic Differential Pulse Voltammetry at the Glassy Carbon Electrode in Sulfolane and Acetonitrile as Solvents; J. Coetzee, G. Kazi, J. Spurgeon; Anal. Chem., 48(14), 2170, (1976).

A Procedure for Determining Hydrogen Fluoride Concentrations as a Function of Time in a Combustion Atmosphere; J. Spurgeon, R. Feher; Report FAA-NA-121, April, 1976.

A Composite Combustion Atmosphere for Designing a Toxic Gas Filter for Use in Aircraft Oxygen Masks; J. Spurgeon; Interim Report, March, 1976.

A Preliminary Comparison of Laboratory Methods for Assigning a Relative Toxicity Ranking to Aircraft Interior Materials; J. Spurgeon; Report FAA-RD-75-37, October, 1975.

Comparison of the Combustion Tube Furnace and the NBS Smoke Chamber for Generating Combustion Products Containing Acid Gases; J. Spurgeon; FAA Interim Report, September, 1974.

Response Characteristics of a Portable X-ray Fluorescence Lead Detector: Detection of Lead in Paint; J. Spurgeon; Report NBS-74-231.

Voltammetry of Polynuclear Aromatic Hydrocarbons in Sulfolane as Solvent; J. Spurgeon; Doctoral Dissertation, Univ. of Pittsburgh, 1972.