

Ian Cull, PE, CIH

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Summary of Qualifications

Ian Cull, PE, CIH, is the founder and chief science officer of Indoor Science, an indoor air quality (IAQ) consulting and training company. He is a highly commended speaker and author who has helped thousands of professionals throughout the world deepen their knowledge about indoor air quality (IAQ), including professionals located in China, India, Spain, Sweden, Singapore, UAE, Australia and Saudi Arabia. Mr. Cull is an internationally recognized consultant with experience handling complex IAQ problems in all building types and has been retained as an expert witness in several federal court cases related to mold and IAQ. He served as the technical director, vice president and board member of the Indoor Air Quality Association (IAQA). He developed the CIH Crash Course, which is taught through the American Industrial Hygiene Association and designed to help industrial hygienists and IAQ consultants reach the highest pinnacle of professional certification.

Work History

2004–Present: Founder, Indoor Science

Founded Indoor Science, an environmental consulting company, in 2004 and served as the president until 2021, when a private equity-backed group acquired the company. He now serves as the organization's chief science officer, overseeing innovation, standardization and quality control for a national team of technicians and consultants. Activities include developing and teaching IAQ courses to facility managers, HVAC contractors, industrial hygienists, environmental health professionals, engineers, remediators and IAQ consultants. He publishes an educational newsletter that has over 5,000 subscribers.

2011-2013: Technical Director, Indoor Air Quality Association

Selected to serve as the part-time national technical director of the IAQA. During his tenure, he developed educational material to train IAQ professionals on a wide range of topics related to the indoor environment. He developed the IAQA University and authored 50 classes that are currently available. He created a YouTube video channel for the association and produced weekly "Tech Tip" videos related to IAQ (<https://www.youtube.com/user/IAQAvideos/videos>). He also fielded technical questions from association members and the media.

2001-2003: Senior Engineer, Chelsea Group Ltd.

Performed IAQ assessments throughout the United States as a senior engineer of Chelsea Group Ltd. He worked with all building types in all major climate zones. His activities included property assessments, sick building syndrome investigations, mold and moisture inspections, remediation plan development and oversight, as well as HVAC system design.

1998-2000: Environmental Engineer, Food for the Hungry, Kenya

Served as a project manager in rural water and sanitation projects in Marsabit and Moyale Districts in Kenya, East Africa. Projects included hand-constructed stone masonry dams, water reservoirs, boreholes, rainwater storage tanks, pipelines, slow-sand filters and hand-dug wells to serve tens of thousands of villagers who had little access to clean water.

1995-1997: Project Engineer, Chelsea Group Ltd.

Supported senior IAQ consultants by researching ventilation, green building construction and environmental tobacco smoke and by assisting senior staff performing IAQ assessments. He helped develop a system to track federal and state regulations pertinent to IAQ.

Education

Bachelor of Science, Civil/Environmental Engineering, University of Illinois Champaign-Urbana, 1996

Credentials

- Licensed Professional Engineer (PE), Environmental Engineering, State of Illinois #062-055689
- Certified Industrial Hygienist (CIH) through the American Board of Industrial Hygienists #11002CP
- Illinois Licensed Radon Measurement Professional #RNI2013203

National Boards

- Director of the Indoor Air Quality Association, 2006-2011
- Vice President of the Indoor Air Quality Association, 2008-2011
- Appointed as the non-voting director of the Indoor Environmental Standards Organization, 2007-2010

Association Memberships

- American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE)
- Member American Industrial Hygiene Association (AIHA) Member
- ASTM International Member
- International Society for Indoor Air Quality and Climate (ISIAQ)
- Member Indoor Air Quality Association (IAQA) Member

Industry Committee Involvement

CHAIRMAN - IAQA

- Research Committee: 2016-2020
- Home Health Committee: 2010-2011
- Futures Committee: 2007-2010
- Ad-Hoc Committee on Conflict of Interest: 2007-2008

COMMITTEE MEMBER:

- ACGIH Bioaerosols Committee – Consultant: 2021
- IAQA Charity and Scholarship Committee: 2020-2021
- ISIAQ Scientific and Technical Committee 34 – IEQ Guidelines: Secretary 2020-2021
- ASTM D22 Air Quality Committee: 2013-2021
- Healthy Buildings 2021-America Organizing Committee: 2020-2021
- ASHRAE Research Administration Committee: 2017-2019
- AIHA-IAQA Indoor Air Quality Body of Knowledge Committee: 2013-2015
- The Building Enclosure Technology and Environment Council (BETEC) Education Committee: 2011-2015
- IAQA's Education Committee: 2005-2010 and 2019
- IAQA's Certified Indoor Environmentalist Subcommittee: 2003- 2009
- IAQA Nominating Committee: 2007, 2008 and 2010
- IAQA Executive Committee: 2008-2011

Conference Participation

- Healthy Buildings 2021-America – Speaker and Session Co-Chair
- Indoor Air Quality Association Annual Conference – Speaker: 2003, 2008, 2011-2021
- ASHRAE Winter Meeting, 2015 – Speaker (Session Volunteer): 2012
- California Industrial Hygiene Council (CIHC) Conference – Speaker: 2012
- HVACR & Mechanical Conference for Education Professionals – Speaker: 2012
- Indoor Air 2011 – Panel Discussion Moderator and Podium Session Chairman

Keynote Speaking Engagements:

- Illinois Association of Energy Raters & Home Performance Professionals (2011)
- ASHI Great Lakes Chapter Conference (2013)
- Chicago Chapter of the Indoor AirQuality Association (2014)
- Basement Health Association Spring Regional Seminar (2014)
- Illinois Chapter of National Association of Home Inspectors Chapter Meeting (2016)
- EMSL Chicago Workshop (2017, 2018)
- JC Restoration Continuing Education Seminar (2017, 2018)

Authored Work

“Fundamentals of Mold Remediation” (2017)

Courses developed by Ian Cull for IAQA University:

IAQ Overview

Introduction to IAQ (IAQU 101)
IAQ and Health (IAQU 102)
Building Related Illness (IAQU 103)
Preventing IAQ Problems I (IAQU 104)
Preventing IAQ Problems II (IAQU 105) IAQ
Management (IAQU 106)
Handling IAQ Complaints (IAQU 107) Regulations,
Standards and Guidelines (IAQU108) Exposure
Guidelines (IAQU 109)

The Fundamentals of IAQ Contaminants

Mold (CONT 101)
Bacteria (CONT 102)
Viruses (CONT 103)
Allergens (CONT 104)
VOCs (CONT 105)
Radon (CONT 106)
Carbon Monoxide (CONT 107)
Other IAQ Contaminants (CONT 108)

HVAC

Residential HVAC Systems (HVAC 101)
Commercial HVAC Systems (HVAC 102)
Media Filtration (HVAC 103)
Air Cleaning (HVAC 104)
Ventilation (HVAC 105)
Ventilation Standards (HVAC 106)
HVAC and Humidity (HVAC 107)
HVAC Maintenance and Hygiene (HVAC 108)

Building Science

Introduction to Psychrometrics (BSCI 101)
Using the Psychrometric Chart (BSCI 102)
Managing Moisture I (BSCI 103) Managing
Moisture II (BSCI 104)

Assessments

Gathering Information (ASMT 101)
Walk Through Inspections (ASMT 102)
Assessing Temperature and RH (ASMT 103)
Assessing Ventilation and Pressurization
(ASMT104)
Assessing Moisture (ASMT 105)
Introduction to Sampling and Report Writing
(ASMT 106)

Sampling IAQ Contaminants

Air Sampling for Mold I (SAMP 101)
Air Sampling for Mold II (SAMP 102)
Surface Sampling for Mold (SAMP 103)
Other Sampling for Mold (SAMP 104)
Sampling for Bacteria (SAMP 105)
Sampling for Allergens (SAMP 106)
Measuring Particulate Matter (SAMP 107)
Measuring VOCs (SAMP 108)
Measuring Carbon Monoxide (SAMP 109)

Mold Remediation

Introduction to Mold Remediation (REME 101)
Personal Protective Equipment (REME 102)
Engineering Controls (REME 103)
Contaminant Removal (REME 104)
Antimicrobial Use (REME 105)
Remediation Plans and Verification (REME 106)

CIH Crash Course

The Certified Industrial Hygienist (CIH) Crash Course is licensed to the American Industrial Hygiene Association (AIHA) as the organization's primary course to prepare members for the CIH examination.

Certified Indoor Environmentalist Prep Course

The Certified Indoor Environmentalist (CIE) Prep Course is an educational program that prepares students for the CIE accredited certification through the American Council for Accredited Certification. Mr. Cull developed the entire curriculum for Indoor Sciences' offering of the program, including the section on contaminants, HVAC, IAQ sampling and mold remediation.

Certified Microbial Investigator Prep Course

The Certified Microbial Investigator (CMI) Prep Course is an educational program that prepares students for the CMI accredited certification through the American Council for Accredited Certification. Mr. Cull developed the entire curriculum for Indoor Sciences' offering of the program, including sections on mold identification, mold health effects, mold sampling and mold remediation.

Certified Indoor Air Quality Manager Prep Course

The Certified Indoor Air Quality Manager (CIAQM) Prep Course is an educational program that prepares students for the CIAQM accredited certification through the American Council for Accredited Certification. Mr. Cull developed the entire curriculum for Indoor Sciences' offering of the program, including sections on contaminants, HVAC, IAQ sampling and mold remediation.

Important Projects

- Retained as an expert witness for federal court cases related to military housing
- Hired by the Los Alamos National Laboratory to train employees on IAQ
- Worked with apparel manufacturers in Hong Kong and China to prevent mold growth
- Helped the U.S. State Department achieve ENERGY STAR for two separate buildings
- Assisted the University of South Carolina facilities staff to develop an IAQ program
- Assisted a U.S.-based shoe company to solve moisture issues that led to over 70,000 moldy shoes
- Invited to, and presented at, educational events in India, China, Australia, Sweden, Spain, Singapore, Barbados, United Arab Emirates, Malaysia, Trinidad and Tobago, Saudi Arabia, Israel and Canada
- Presented an industrial hygiene course to the U.S. Navy and a mold course to the U.S. Army
- Invited by NASA to speak to its occupational hygiene teams regarding IAQ