

WILLIAM R. ACORN, P.E., FASHRAE

OVERVIEW OF PROFESSIONAL EXPERIENCE



William R. Acorn is principal and founder of Acorn Consulting Services. A consulting mechanical engineer specializing in the built environment, he provides project analysis, forensic reconstruction, litigation support services and advanced training.

With more than 40 years' experience as a professional engineer, Mr. Acorn is an internationally recognized authority on assessing, evaluating, conceptualizing and remediating complex project design, construction and operational issues related to HVAC systems, cleanrooms, piping systems, refrigeration systems, and building and fire code compliance. He has analyzed and designed hundreds of projects including commercial facilities, institutional laboratories and cleanroom facilities for the semiconductor, medical service, bio pharm, and advanced manufacturing industries.

Mr. Acorn has significant experience as an **expert analyst** of system design, system failures, code compliance issues and cause/effect relationships of performance issues related to the built environment. As a forensic analyst, litigation consultant and expert witness, he has represented plaintiffs and defendants in a variety of jurisdictions with litigation values to greater than \$250 MM US. Forensic assignments have included projects dealing with:

- HVAC and refrigeration systems
- Cleanrooms and other critically controlled environments
- Chemical exposures in the workplace
- Industrial ventilation systems
- Process and power Piping
- Plumbing systems
- Energy management/control systems
- Commercial/industrial refrigeration systems
- Fires and explosions
- Exposure to Legionella
- Standard of care in design and construction
- Codes and standards
- Patent and Trade Secret Disputes

Mr. Acorn's experience as an engineer, project manager and design firm principal covers the spectrum including:

- Programming
- Conceptual design
- Facility evaluation and optimization
- Design for construction documents
- Start-up and commissioning
- Construction phase support
- Litigation support
- Forensic analysis
- Strategic litigation consulting
- Trial demonstratives
- Expert testimony

Mr. Acorn provides **project consulting** services; acting as an owner's agent or extension of the staff of the designer and/or builder of complex projects. These services span a range including peer review of design and construction documents, code compliance consulting, value engineering, sustainability evaluation and performance optimization recommendations.

Mr. Acorn has been involved since the inception of CREATE "Construction Research and Education for Advanced Technology Environments" at Arizona State University. This organization is charged with research and development related to the design and construction of advanced technology facilities. A visiting lecturer at Arizona State University, he delivers public and private seminars and workshops through their continuing education program on topics including mechanical system design, project management and code compliance for advanced technology facilities.

As a visiting lecturer in the Department of Mechanical Engineering at the University of Arizona, Mr. Acorn lectures on the analysis and design of environmental control systems (HVAC) for buildings.

As the author of the book *Code Compliance for Advanced Technology Facilities*, Mr. Acorn is widely recognized as an authority on the subject, delivering seminars and workshops to industry and academia on hazardous occupancy code compliance. Mr. Acorn regularly consults with the regulatory community concerning issues of life safety in semiconductor and similar hazardous occupancy facilities. In addition, Mr. Acorn was a contributing author to the *Semiconductor Safety Handbook* edited by Richard A. Bolmen, Jr.

Mr. Acorn is registered as a Professional Mechanical Engineer (P.E.) in Arizona, California, Colorado, Illinois, Iowa, Nevada, New Hampshire, New Mexico, Oregon, Texas, Utah and Washington, and is also registered with the NCEES. He has been recognized for technical achievements, innovation and foresight by peers, associates and clients, and has been conferred the status of "Fellow" in the industry-leading professional organization ASHRAE. Mr. Acorn has also attained the status of Board Certified Diplomate in Forensic Engineering granted by the National Academy of Forensic Engineers (NAFE).

