

2010 ASHRAE Region IX Chapters Regional Committee Conference

Technical Sessions

Hosted by the

Ozarks ASHRAE

Morning Technical Session

Technical Session 1

Friday, August 13th 8:30am – 11:00am (2.5 pdh)

Topic: Cook Interactive tech center tour



Loren Cook Company, founded in 1941 and headquartered in Springfield, Missouri is a major manufacturer of fans and related HVAC equipment. This technical session will offer tours of their sound testing laboratory and tech center.

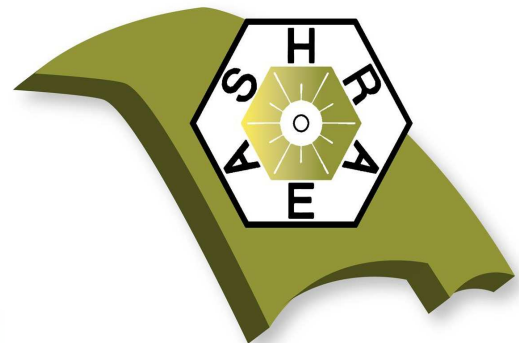
The sound laboratory provides a state of the art facility to conduct sound power testing of fans using the AMCA 30 test method. The reverberation chamber is built with two heights to accommodate testing of rooftop units with supply and return air openings at the floor and can accommodate fans with airflows from 20 cfm to 40,000 cfm and up to 10 inches wc of static pressure. The floor of the chamber is built to float above the slab at grade, separated by neoprene pads, to provide isolation.

The tech center portion of the tour will provide demonstrations of some airflow basics, including fan laws and system effect using equipment in Cook's show room as well as the opportunity to see different sizes and styles of fans up close.



REGISTRATION

Register for the CRC online by visiting:
<http://ozarksashrae.org>



Afternoon Technical Sessions

Technical Session 2

Friday, August 13th 1:30pm – 3:00pm (1.5 pdh)

Topic: ASHRAE Standard 189.1-2009

Speaker: Dr. Tom Lawrence, PhD, PE, LEED-AP,
Faculty of Engineering, University of Georgia



Dr. Lawrence is a Public Service Associate with the University of Georgia, and has 30 years of professional experience. Before going back for his Ph.D., he spent approximately 20 of those years in industry and consulting. He is the current chair of ASHRAE Technical Committee 2.8, “Building Environmental Impact and Sustainability”, and is a member of the committee writing an ASHRAE standard on high-performance green buildings (Standard 189.1). As an ASHRAE Distinguished Lecturer, he gives presentations and workshops on green building design at venues around the world. At the University of Georgia, Dr. Lawrence teaches courses in Building HVAC, Green Building Design, and Residential Building Design. He is also helping to coordinate building energy reduction activities within the entire university system for the state of Georgia. He is an active volunteer with Habitat for Humanity, currently serving as President of the board of directors for the Athens, Georgia chapter.

Dr. Lawrence has a B.S. with Highest Distinction honors in Environmental Science from Purdue University (1978), a M.S. in Mechanical Engineering from Oregon State University (1982) and a second M.S. degree in Engineering Management from Washington University earned in 1989. He received a Ph.D. in Mechanical Engineering from Purdue University in the spring of 2004.

The New ASHRAE Standard 189.1 for High Performance Green Buildings

ASHRAE recently released a new standard for the “Design of High Performance, Green Buildings” (Standard 189.1-2009). The Standard provides minimum requirements for a high-performance green building, and was developed with the intent of balancing environmental factors involved with the siting, design, construction, and planning for the operation of buildings. This session provides a detailed look at the standard, background on its development and some discussion on how it might be used and adopted by various localities and organizations.

Dr. Lawrence teaches a class on understanding Standard 189.1 for High Performance Buildings on the ASHRAE online Learning Institute. The next class will be available September 22, 2010. Online registration is available through ASHRAE’s website.

Technical Session 3

Friday, August 13th

3:30pm – 5:00pm (1.5 pdh)

Topic: Shallow Carbon Sequestration/Global Warming... or Not?

Speaker: Gary Pendergrass, PE, RG, City Utilities



Gary Pendergrass is a Registered Professional Engineer and Registered Geologist with over thirty years of experience in management of major engineering and environmental projects. Mr. Pendergrass is an expert in project management and environmental public relations, and has a wealth of successful experience in regulatory negotiations and environmental litigation.

Mr. Pendergrass currently serves as Manager of Environmental Compliance with City Utilities of Springfield, MO, and previously served the utility as Assistant to the Manager of Engineering and Planning. Gary rejoined the utility after retirement from Syntex Corporation, where he served as President of Agribusiness Technologies, Inc. During his association with Syntex, Mr. Pendergrass completed major hazardous waste cleanups at the Syntex Agribusiness, Inc. Springfield (MO) and Verona (MO) plant sites and, most recently, headed up the Eastern Missouri Dioxin Project, a nationally-recognized hazardous waste cleanup project involving 29 dioxin-contaminated sites, including Times Beach. The Eastern Missouri Dioxin Project is the largest hazardous waste cleanup project ever completed in EPA Region VII, and one of the largest in the nation. The “mixed work” settlement agreement negotiated by Mr. Pendergrass for the Eastern Missouri Dioxin Project was termed a “model for the nation” by EPA. During his association with City Utilities, Mr. Pendergrass has completed a number of projects involving dam inspection and rehabilitation, landfill design and construction, coal sourcing and supply, and water resource development; and is currently managing a federally-funded research project to evaluate the feasibility of carbon capture and sequestration (CCS) in the state of Missouri. As a private consultant, Mr. Pendergrass has also provided litigation support and expert testimony on issues involving soil and groundwater contamination, foundation failure, ground movement, groundwater depletion, karst geology, blasting damage, construction techniques, and contract commercial terms.

Mr. Pendergrass holds Bachelor of Science Degrees in Engineering Geology and Stratigraphy from Missouri State University, and both Bachelor of Science and Master of Science Degrees in Geological Engineering from Missouri University of Science & Technology (UMR). He has served on the Boards of Directors of Syntex Agribusiness, Inc. and Agribusiness Technologies, Inc., in addition to public service on the Missouri Air Conservation Commission, Missouri Board for Geologist Registration, Springfield/Greene County (MO) Environmental Advisory Board, and Watershed Committee of the Ozarks, and professional service on National Society of Professional Engineers and Missouri Society of Professional Engineers Boards. Gary has been featured in MSM Alumnus (a quarterly publication of Missouri University of Science & Technology), and his work on the Eastern Missouri Dioxin Project has received national recognition from Renew America and the National Awards Council for Environmental Sustainability, as well as the Keep America Beautiful National Awards Campaign.

Gary will discuss City Utilities’ research into carbon sequestration at its Southwest Power Station. The process involves injecting food grade carbon dioxide into the Lamotte Sandstone Formation, a natural saline formation deep beneath Springfield. The research is being conducted in cooperation with Missouri State University and Missouri University of Science & Technology. He will also discuss the scientific evidences for and against global warming.