Technical Session Track 1
What's New with ASHRAE Standards?

Standard 62.1 - 2016: Ventilation System Design and Acceptable Air Quality
Time: 8:00AM – 9:30AM
By: Hoy Bohanon

Learn how ASHRAE 62.1-2016 has fundamentally changed and the many associated requirements in addition to the ventilation rates.

Standard 90.1-2016: Energy Standards for Buildings Except Low-Rise Residential Buildings
Time: 10:00AM – 11:30AM
By: TBD

Learn the most recent changes to 90.1-2016, the critical connections between building energy use and other social/environmental imperatives, critical energy, and environmental trends that will help prioritize delivered building performance.

LUNCH – Noon to 1PM

Standard 189.1-2017: Standard for the Design of High Performance Green Buildings
Time: 1:00PM – 2:30PM
By: Drury B. Crawley, Ph.D.

Learn the structure and performance requirements of Standard 189.1-2017 and compare expected energy savings to other ASHRAE Standards by commercial building type.

How to Implement Demand Control Ventilation & Comply with ASHRAE 62.1-2016
Time: 3:00PM – 4:00PM
By: Hoy Bohanon

ASHRAE standards 90.1 and 189.1 require demand control ventilation in some instances. ASHRAE standard 62.1 allows demand control ventilation but places restrictions on its application. Many existing installations do not comply with the requirements of ASHRAE Standard 62.1. What is required and what strategies and technologies can be used to meet the requirements of the all the standards? GBCI Accredited course number 0920010384

PDH

PDH Certificates will be available for all Technical Session Attendees.

Technical Session Track 2
Resilient and Sustainable Strategies for the Built Environment

Impacts of Climate Change & Urbanization
Time: 8:00AM – 9:30AM
By: Drury B. Crawley, Ph.D, P.E.

Recent research has focused on the impact of climate change and urban heat island on building operation and performance. Impacts on the operating performance of an office building were estimated based on climate change and heat island scenarios in 20 climate regions. This presentation presents the variation and differences among the 20 regions, focused on changes in comfort conditions, building equipment operation and daily patterns of energy performance using prototypical buildings. Other issues such as fuel swapping as heating and cooling ratios change, impacts on environmental emissions, and how low-energy building design incorporating renewables can significantly mitigate any potential climate variation are also presented.

Green "Sustainable" HVAC Design
Time: 10:00AM – 11:30AM
By: Julian deBullet

This presentation will explore the different choices that must be made to ensure an efficient design. We will compare different systems, including LEED and Green Globes to see how the design can comply with Green design concepts. An exploration of Life cycle calculations will complete the seminar.

LUNCH – Noon to 1PM

Understanding Dustless Infrared Radiant Heating vs. Forced Air Heating
Time: 1:00PM – 2:30PM
By: Don Larsson

As the requirements for energy efficiency increase, engineers need to understand and address more efficient heating systems. This presentation will discuss applications of infrared radiant (IR) heat and associated calculations including Mean Radiant Temperature. Topics include lowering thermostat settings, comfort, and energy usage.

Coastal Adaptation & Protection in Virginia
Time: 3:00PM – 4:00PM
By: Rear Admiral Ann Phillips, USN Ret.

This presentation is a discussion about Virginia's comprehensive action to prepare its coastal communities, businesses, people, property, and unique Federal infrastructure for the impact of our changing climate.

ASHRAE Hampton Roads Chapter

Hampton Roads Chapter

August 15, 2019

Welcomes you to ASHRAE Region III CRC Technical Session

Region III Chapters

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Drury B. Crawley, Ph.D., AIA, Fellow ASHRAE, BEMP P.E.

Standard 189.1 AND *Impacts of Climate Change & Urbanization*

Dru Crawley is Bentley Fellow and Director, Building Industry Development focusing on building performance, BIM, net-zero-energy buildings, sustainability, resilience, and smart cities. With more than 40 years of experience in buildings energy efficiency, renewable energy, and sustainability, he has worked in engineering software development, government research and standards development organizations, as well as building design and consulting companies. He received his PhD in Mechanical Engineering from University of Strathclyde in Glasgow, Scotland on the topic of building simulation as a policy tool, a Bachelor of Architecture from University of Tennessee, and is a registered architect.

Hoy Bohanon, PE, LEED AP, BEAP

Standard 62.1

Hoy Bohanon is principal in Hoy Bohanon Engineering, PLLC, a firm that focuses on improving the performance of existing mission critical buildings. Mr. Bohanon began his engineering career as a research and design engineer, and then gained experience as a project engineer, facilities engineer, facilities manager, indoor air quality research engineer, environmental engineer, and business owner. He has a master's degree in engineering from North Carolina State University, and a bachelor's degree in mechanical engineering from Georgia Institute of Technology. He is a recipient of the ASHRAE Distinguished Service Award and is chair of ASHRAE Standard 62.1 committee, Ventilation for Acceptable Indoor Air Quality.

Julian R. de Bullet – ASHRAE Life Member

Green "Sustainable" HVAC Design

Julian R. de Bullet, President of deBullet Consulting LLC, has over 40 years' experience in the HVAC industry specializing in educational outreach and energy advocacy. Retired, he is a Technical Consultant providing seminars for the Carrier Corporation team while developing strategies for high performance buildings that are safer, smarter and sustainable. He has attended the Montreal Protocol meetings since 2003 and is a refrigerants expert for Carrier Corporation and government. He is an ASHRAE Life Member and holds the ASHRAE Distinguished and Exceptional Service Awards. He is a Graduate of the London University system in England, where he obtained an Electrical Engineering degree and a Diploma in Marketing.

Rear Admiral Ann C. Phillips, United States Navy (Retired)

Green "Sustainable" HVAC Design

Rear Admiral Ann C. Phillips, USN (Ret) is a member of the Center for Climate and Security's Advisory Board. A Surface Warfare Officer, Rear Admiral Phillips has served in every warfare group of the Surface Navy: Destroyers, Aircraft Carriers, Amphibious, and Replenishment Ships. During her 31 years on active duty she commissioned and commanded USS MUSTIN (DDG 89), and commanded Destroyer Squadron TWO EIGHT, and Expeditionary Strike Group TWO – which included all the Amphibious Expeditionary Forces on the East Coast of the United States. Upon retirement from the U.S. Navy in 2014 she pursued her MBA at The College of William and Mary, Mason School of Business, graduating in 2016. During this time she also chaired the Infrastructure Working Group for the Hampton Roads Sea Level Rise Preparedness and Resilience Intergovernmental Pilot Planning Project convened by Old Dominion University. The project worked to develop a collaborative, whole of government and community approach to address the impact of sea level rise across the Hampton Roads region that could be used as a template by other regions facing similar challenges. Now an independent consultant, she continues to work to address sea level rise and climate impact on national security at the regional, state, and national level, and speaks about climate security and adaptation strategies to a broad range of audiences. She also serves on local, regional, and national non-profit Boards, and coordinates an evolving wetlands restoration project for her neighborhood in Norfolk, Virginia.