Updated June 30, 2022

REGISTRATION IS OPEN

2022 ASHRAE Region III CRC
August 18, 19 and 20, 2022

Mohegan sun, Pocono resort, wilkes-barre, pa

Gambling problem – call 1-800-GAMBLER

The Anthracite chapter is excited to host this year's 2022 CRC with an IN-PERSON format. For those reluctant or unavailable to attend in-person, most sessions including technical development, the caucus and business meetings, and chapter committee chair training will be broadcast virtually. If you have questions, contact Dennis Gochoel at C134prg@ashrae.net.

A discounted room rate of $119.00 (plus taxes and fees) has been negotiated at the Mohegan Sun Pocono Resort, the area's premier facility for meetings and conferences, complete with well-appointed rooms, swimming pool, beautiful conference amenities, and all within walking distance of Mohegan Sun Casino, racetrack and a multitude of dining options. You must register for this separately. Use the *booking link https://book.passkey.com/go/ash0822* for your discounted rate by July 19, 2022 to receive the discounted rate. Mohegan Sun Pocono is an adult only resort. Guests must be 21 years of age or older to stay in the hotel. Please see link https://anthraciteashrae.weebly.com and click on REGION III CRC 2022 for nearby, family-friendly, hotels.

Making it a family trip? Check out local attractions and things-to-do in Wilkes-Barre/Scranton Area including these favorites:

- **Shoppes at Montage**
- **Pocono Organics**
- **Steamtown Rail Museum/Electric City Trolley Museum**
- **Seven Tubs Recreation Area**
- **PA Anthracite Heritage Museum**

PA Anthracite Heritage

Mary Stegmaier Mansion

Technical Development Sessions: This year's theme is "Decarbonization". Technical sessions will be held in-person on Thursday with lunch and breaks provided for those in attendance. CEU's will be provided. Keynote speakers include Steve Kujak, Erin McConahey, E. Mitchell Swann, John Pisklak.

The Regional Caucus (Chapter Delegates and Alternates only) will be held Thursday evening with the Regional Business Meetings (open to membership at large) held on Friday.

The welcome reception will be held at the Mary Stegmaier Mansion on Friday evening from 6:00 to 10:30 pm.

Highlights of the CRC will include the Presidential Luncheon on Friday, a Leadership Workshop on Saturday morning, and the Regional Awards Luncheon on Saturday afternoon. Joining us in-person for the CRC will be Dunstan Macauley, 2022-2023 Society Vice President, Ashish Rakheja, 2022-2023 Society Vice President, and Drury B. Crawley, Ph.D., Society Director at Large.

Important CRC information

Schedule of events:

Thursday, August 18

Registration	7:30 am – 5:00 pm	
Technical Session 1	8:00 – 9:30 am	The Future of Refrigerants, Stephen Kujak
Morning Break	9:30 – 10:00 am	
Technical Session 2	10:00 – 11:30 am	The Carbon Context for Mechanical Engineers, Erin McConahey, ASHRAE Fellow, HDBP
Lunch	12:00 – 1:00 pm	
Technical Session 3	1:00 – 2:30 pm	Project Deliver Methodologies, E. Mitchell Swann
Afternoon Break	2:30 – 3:00 pm	
Technical Session 4	3:00 – 4:30 pm	Sustainable Data Center Cooling, John Pisklak
Caucus Mixer	5:00 – 6:15 pm	
Caucus	6:15 – 10:00 pm	
Hospitality Room Open	9:30 – 11:00 pm	

Friday, August 19

Registration	7:30 am – 5:00 pm	
Breakfast	7:00 – 8:30 am	
Family Activities	9:00 am – 3:00 pm	
First Business Meeting	8:00 – 11:45 am	
Morning Break	9:30 – 9:50 am	
Presidential Luncheon	12:00 – 1:45 pm	
Second Business Meeting	2:00 – 5:00 pm	
Afternoon Break	3:15 – 3:30 pm	
Buses to Welcome Reception	5:15 pm first bus	
	6:00 pm second bus	
Welcome Reception	5:45 – 10:30 pm	Mary Stegmaier Mansion
Cocktail Hour	5:45 pm	Mary Stegmaier Mansion
Dinner	7:00 pm	Mary Stegmaier Mansion
Return Buses	9:30 pm first bus	
	10:30 pm second bus	
Hospitality Room Open	9:45 pm	Mohegan Sun Hotel Room TBD

Saturday, august 20

Registration	7:30 am – 12:00 pm	
Breakfast	7:00 – 8:30 am	
Leadership Workshop	8:00 – 10:15 am	
Morning Break	10:15 – 10:30 am	
Chapter Chair Training	10:30 – 11:45 pm	Historians
		Secretary/Communications
		Treasurers
		Chapter Leadership
		Student Activities
Awards Luncheon	12:00 – 2:15 pm	
Chapter Chair Training	2:15 – 4:00 pm	
		Membership Promotion
		CTTC
		Research Promotion
		Governmental Affairs
		YEA
Regional Officer Wrap-up	4:45 – 6:00 pm	

Session 1 (8:00 – 9:30 am)

The future of refrigerants
1.5 PDHs

Stephen kujak
Director of Next Generation Refrigerants Research for Trane Technologies™ (divisions include Trane and ThermoKing)

Steve Kujak is the director of Next Generation Refrigerants Research for Trane Technologies™ (divisions include Trane and ThermoKing). Over the past 29 years, he has been involved in technology development of new refrigerants, absorption chillers and IAQ cleaning technologies. Steve has been an author or co-author of 50+ publications related to refrigerants and has 22 patents related to HVAC products.

Steve is a distinguished service member of ASHRAE and is involved in numerous refrigerant safety and use standards used globally by the HVACR industry. He chairs ASHRAE Standard 34 "Designation & Safety Classification of Refrigerants". He is also a member of many ASHRAE Section 3 technical committees related to refrigerants and lubricants and is also a voting member of Refrigeration Committee Technology Committee for Comfort, Process, and the Cold Chain (REF-CPCC). He was awarded the ASHRAE Crosby Field award for highest rated presentation of a technical paper in 2016 and was also awarded the George Briley Refrigeration Committee award twice for best ASHRAE journal article on refrigeration in 2017 and 2018. He is also involved with AHRI and is participating in the Alternate Refrigerant Evaluation Program (AREP) and the ARTI Flammability Research Subcommittee. Steve is the vice-chair for AHRI-700 standard "Specification for Refrigerants" for the past 10 years. He has a BS in chemistry from the University of Wisconsin-LaCrosse.

His hobbies include outdoors activities; like gardening, fishing, hunting, and camping with his family and, also, tends to his 13.5 kw solar photovoltaic system. Steve participates with local organizations working on environmental sustainability minded projects, like US Fish and Wildlife, community government sustainability initiatives and his local energy cooperative. Steve is a past president for the Friends of the Refuge-Mississippi River Pools 7 and 8 group which supports the US Fish and Wildlife conservation efforts for local Mississippi River wildlife refuges.

abstract:
New societal environmental demands to control climate change are driving the development of new regulatory policies to restrict and lower the direct GWP (global warming potential) impact of F-gases. The HVAC&R industry is currently being challenged to invest significant resources to understand the best refrigerants that meet the above requirements. However, there are many uncertainties and challenges given the ever-changing global regulatory environment, within regions, country, state, and sometimes locally by city. Safe non-flammable low toxicity F-gases allowed for an exponential increase in the

standard of living of society through increased food productivity, reduction in heat related deaths, increased worker productivity and migration of people to cities and to hotter climates. The orderly transition from CFC's to HCFC's and HFC's achieved a balance between the societal environmental demands for reduced ozone depletion while continuing to improve the standard of living in developing countries and minimize the societal safety (nonflammable refrigerants) impacts for everyone. Today designers are being asked to consider new lower direct GWP unsaturated hydrofluorocarbons (HFO's) refrigerants, some of which are slightly flammable under certain conditions, as well as revisiting the application of natural refrigerants, like carbon dioxide, ammonia, hydrocarbons, and water. This presentation will provide an update on new lower GWP alternatives introduced into the marketplace and will highlight some important considerations, particularly flammability, that engineers, designers, and building owners should keep in mind regarding next generation refrigerants.

Session 2 (10:00 – 11:30 am)

The carbon context for mechanical engineers
1.5 PDHs

Erin mcconahey, ashrae fellow, hdbp
Erin McConahey is a Principal in Mechanical Engineering with Arup, an employee-owned global engineering, advisory and planning consulting firm. During her 26 years with Arup, she has worked internationally and now leads multidisciplinary design teams in Los Angeles on a wide variety of project types.

Erin's passion for finding integrated design solutions through a collaborative design process began with a bachelor's degree in Mechanical Engineering and a master's degree in Structural Engineering from the University of California at Berkeley. As she rose in leadership within her firm, she served on Arup's global Trustee Board, was named an Arup Fellow for her technical excellence, spearheaded the Americas Region Diversity and inclusion initiative, and serviced on the leadership teams for a number of training programs. These service opportunities, coupled with growing concern over climate change, led her to a second master's degree in Ethical Leadership from Claremont Lincoln University

Erin is a Professional Engineer in California and Colorado, a LEED accredited professional (BD+C specialty), an ASHRAE accredited High Performance Building Design Professional, and a Fellow of the American Society of Heating, Refrigeration, and Air conditioning Engineers. She is a co-author of the ASHRAE Natural Ventilation Design Guide and writes semi-annually for the Engineer's Notebook column in ASHRAE Journal. In the latter capacity, she has emphasized the link between mechanical engineers' "skills for this decade" to the wider global trends around the carbon economy, health materials, and sustainable development.

Abstract:

This session is an introduction to the big picture trends associated with the growing momentum around building decarbonization. It includes a review of market-related concerns arising from ESG reporting (Environmental, Social, Governance), the trends towards lowered carbon intensity of electricity at the grid level, the emerging local regulatory influence, and technology considerations. This session expands on the speaker's September 2021 ASHRAE Journal article on these topics.

Session 3 (1:00 – 2:30 pm)

Project delivery methodologies
1.5 PDHs

E. Mitchell Swann
Mr. Swann has over 30 years of experience in the areas of engineering design, project management and consulting for a wide array of clients in diverse industries in the USA and abroad. Mr. Swann's career has included engineering design of HVAC, Piping and Control systems; Project and Department Management, Commissioning, Forensic Engineering and Expert Witness engagements; Dispute Resolution and Project Execution Consulting. He has worked for clients on commercial, institutional, and high-tech/industrial projects. He has worked in A/E, E/A and Design-Build firms and Construction Management and as liaison between the design and construction team.

Mr. Swann has authored several articles on several subjects in project execution and professional practice including the "Standard of Care", Substantial Completion and Project Risk Management. Mr. Swann is active in several Technical Committees within ASHRAE, including TC 1.7-General Business, Management and Legal Education, TC 2.8-Sustainable Design, TC 7.1-Integrated Design, TC 7.2 HVAC Design-Build, and TC 9.11-Clean Spaces.

He served as President of the Engineers Club of Philadelphia from 2012-2014 and still sits on the Board of Directors. He is currently a Director on the Board of the Philadelphia Energy Authority where he serves as Treasurer. He is also on the PA State Uniform Construction Code Review and Advisory Council. In addition to ASHRAE, Mitch is a member of the USGBC, The Delaware Valley GBC, ISPE and the American Bar Association's (ABA) Construction Forum. He previously was vice-chair of the ABA's Alternative Dispute Resolution Section Committee on Construction.

He is a graduate of Drexel University in Philadelphia with a BSME with a concentration in Thermal Fluid Sciences (aka "Energy").

Abstract:
This program will present an overview and comparison of some of the more common project delivery methodologies. We will review the key differences and some similarities between the methodologies along with strengths and weaknesses of each. We will also discuss key elements of scope control, project acceptance and risk management with a special emphasis on Integrated Project Delivery.

Session 4 (3:00 – 4:30 pm)

Sustainable data center cooling

1.5 PDHs

John pisklak

John Pisklak brings a background with over 30 years of experience in the precision temperature and humidity control field, with a particular emphasis on “Mission Critical” (data center) spaces. John has a business degree which was expanded over the hears into experience in every phase of data center design and critical infrastructure including air, power, monitoring, and security. He has experience with the data center density evolution from 1 ton of cooling per 100 square feet to 350 watts or more per square foot. John places an emphasis on reliability, redundancy, energy efficiency, ease of operation and maintenance is his data center projects.

Abstract:

Following the presentation, attendees will be able to identify:

- What is a data center?
- What design guideline should be considered and applied?
- What level of design is required?
- What approach should be taken to sustainable data center design?