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UPCOMING EVENTS

- **November 2nd**
Chapter Meeting
11:30am to 1:30pm
Tulsa Country Club

PRESIDENT'S MESSAGE

By Keith Averitt

Our ASHRAE chapter is in full stride, with a highly successful golf tournament behind us, and an insightful and thought provoking panel discussion for our first Chapter meeting. Thanks to all who came out and participated in this discussion, especially to those panel members who were on the “firing squad”. Great discussion was had, with the general consensus among everyone that the single most important item across the board was the need for good and consistent communication with all parties involved on a construction project.

Looking forward to our November Chapter meeting, we will be hosting Scott Alford presenting on “Mitigating the Risks of Legionella Through a Water Management Program”. Most outbreaks of the disease are happening in large buildings such as schools, hotels, gyms, restaurants, factories, and other commercial and property management buildings, where the bacteria has grown and spread throughout the water system. Many of these types of buildings were closed for long periods of time due to COVID lockdowns, and now as they begin to re-open, we’re seeing a spike in cases of Legionnaires’ Disease across the country. In hospitals and nursing homes especially, where germs spread with ease and patients are vulnerable to infection—Legionnaires’ Disease can present a significant danger. Legionella is found in freshwater areas, such as lakes, rivers, and streams. If present in very small concentration, it doesn’t tend to cause any problem. However, when this bacteria grows and enters residential or commercial water systems such as domestic water heaters or cooling towers, it can become a concern.

Legionella bacteria can infiltrate building water systems, including faucets, shower-heads, hot tubs, fountains and water features, hot water tanks, and thrives in old, stagnant water.

There are several options for helping mitigate the risk of Legionella, including proper equipment operation, materials of construction, etc. Scott will be presenting on ways to prevent Legionella through developing an appropriate Water Management Program. I highly encourage all of you to attend, as this should be beneficial to all of us in the ASHRAE community, reps, engineers and contractors. Looking forward to seeing you there!

Keith Averitt

Keith Averitt
2022-2023 Chapter President
kaveritt@eel-ok.com



CHAPTER TECHNOLOGY TRANSFER/PROGRAMS

By Michael Floyd

Thank you to everyone that was able to make it for the first meeting of the ASHRAE year! I hope everyone enjoyed the panel of speakers and their answers to the questions we all had directed towards them (hopefully we'll be able to use the answers they gave from experience on future projects of ours). I'd like to thank all five of the panel speakers, for being willing to answer and discuss questions at our chapter's first meeting.

For our next chapter meeting, Scott Alford will be presenting on "Mitigating the Risks of Legionella Through a Water Management Program." It'll definitely be a very interesting topic, so please try to find time to join us for lunch on November 2nd at 11:30am for our next ASHRAE meeting at the Tulsa Country Club (701 N. Union Ave).

Also, most (if not all) of the spots are near full for this ASHRAE year. But if you have a certain topic that you'd like to see our ASHRAE chapter put on, please email me and I'll try to get a spot for it!

Michael Floyd

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TREASURER REPORT

By Austin Barton

Our chapter's current net worth as of October 19, 2022 is as follows.

BOK- General checking:	\$24,928.98
BOK-Investments-CRC-Training:	\$35,284.69
<u>Jack Tumilty Scholarship Fund:</u>	<u>\$26,509.73</u>
Total Assets:	\$86,723.40

Austin Barton

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YEA

By Zach Seizinger

YEA's gearing up for another event come late November/early December. We're looking to switch things up and do something a bit out of the ordinary for this one so stay tuned and keep on the lookout for the upcoming event flyer, this is one you won't want to miss out on!"

Zach Seizinger

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RESEARCH PROMOTION

By Chad Marazas

We have requested all the individual and company recognition awards for last year. We will be handing these out at the November meeting. We will continue to reach out to past donors in the coming weeks and as always thank you for your past support. I would also like to thank those who have already made their individual contributions for this year.

Please help us support ASHRAE research by making your donation today! Donations may be made in person, by mail, or online

Please visit the link below to make a contribution.

<https://xp20.ashrae.org/secure/researchpromotion/rp.html>

Chad Marazas

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REFRIGERATION

By Eric Mulliniks

ASHRAE provides a variety of training opportunities in the area of refrigeration? Here are some highlights of what's currently available on ASHRAE's Refrigeration page:

Instructor-Led: [New ASHRAE-Classified Refrigerants to Meet Society's Changing Needs](#)

eLearning: [eLearning Courses on Refrigerants](#)

Self-Directed Course: [Fundamentals of Refrigeration \(I-P\)](#)

Instructor-Led: [Variable Refrigerant Flow System Design & Application](#)

Eric Mulliniks

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MEMBERSHIP PROMOTION

By Brian Biggerstaff

If anyone you know is interested in joining ASHRAE, you can share the below link with them, or send them a personalized message using Connect-A-Colleague. We've kept it simple: Enter your name and email, your colleague's name and email, and press send. That's it! This pre-written invitation will be sent on your behalf, and includes options to reference an ASHRAE technical committee section, and to add a custom message.

http://web.ashrae.org/connect_a_colleague/

If you prefer to simply share a link with a friend they can join ASHRAE using the below:

<https://join.ashrae.org/>

Brian Biggerstaff

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STUDENT ACTIVITIES

By Sara Farel

Hey all! Happy fall! SA has some great news this month, we have successfully reactivated the Student Chapter at the University of Tulsa! This is a huge deal, and we are so excited. I'd like to welcome Dr. Karimi as our Student Branch Advisor. One of the newest professors on the Mechanical Engineering team at the University of Tulsa, she has been a great asset to getting our Student Chapter restarted.

In addition, if anyone is interested in having an intern this summer, please let me know so I will be able to coordinate with our student members.



Sara Fazel
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GAC

By Chad Smith

Hope your ASHRAE year is off to a great start. I'm excited to announce that we have scheduled a meeting with Rep. Kevin Hern's office in November. Rep. Hern represents the 1st district of Oklahoma that includes most of Tulsa as well as extending north to Bartlesville and southeast to Wagoner.

I would like to invite you to join the virtual call that we will have with his office to introduce them to ASHRAE and give them some updates of ASHRAE's policy positions on various issues that impact our state. The call will be Tuesday, November 8th at 1:00 P.M. Please contact me at chad@airetechcorp.com and I will share the log in credentials for the call as well as talking points.

If you can't make this call, don't worry, we will continue to do outreach at federal, state, and local level here, so there are plenty more opportunities. Don't forget to visit the ASHRAE GAC website at <https://ashrae.org/about/government-affairs>. On this page, you will find the Member Advocacy Toolkit that has several presentations, flyers, info sheets that assist you in your meetings as well as several advocacy guides. You will also find the site with ASHRAE's Public Policy Information Briefs. These are information briefs on current issues impacting our industry and gives you what ASHRAE's position is on it. These are very good resources to share with public officials.

Lastly, be sure to sign up for the ASHRAE Government Affairs Update. It is a bi-monthly communication that is sent out from Society that provides information from all areas of ASHRAE regarding government affairs. You can click on this link [ASHRAE GAU](#), and hit the SUBSCRIBE button to receive these updates. Looking forward to working together for ASHRAE outreach.



Chad Smith
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ELECTRONIC COMMUNICATIONS

By Austin Whetstone

Well, October has passed, and so has our first Chapter Meeting Lunch. It was our first chapter meeting utilizing Webex as our medium for attendees who were remoting in. We will continue to use this method for each of our chapter meetings this year, so please use the information below to log in to next weeks meeting:

Meeting link: <https://ashrae.webex.com/ashrae/j.php?MTID=mfec2efcd063e1c531c5fcd7b39e96948>

Meeting number: 2347 177 6058

Password: 5H3Bje4qcwE

Or by phone at 1-866-299-4153, Access code: 2347 177 6058, Host PIN: 7013

As always, please reach out to neok.ashrae@gmail.com with any events that you would like put on the schedule, and I'll get them added. I'll also make sure that there are posts on each of our social media pages that highlight the events, so be sure to follow us on Facebook or LinkedIn in order to see what events are coming up!



Click on one of these logos to visit our pages.



Austin Whetstone

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HONORS & AWARDS

By Mike Beda

President, Keith Averitt, is our new leader for 2022-2023 and has requested that I look for additional candidates for local, regional and society awards for this year.

If you have served as a chapter committee chair or a society member as subcommittee chair or vice-chair, it is time to update your ASHRAE bio.

Follow these steps on the ASHRAE website – <https://www.ASHRAE.org>

On the home page, click on MEMBERSHIP. The drop-down menu will appear. Under MY ASHRAE, click on MANAGE MY MEMBERSHIP. The log in will appear. Type in your email address and password and click LOG IN. Your membership CONTACT INFORMATION, BIO INFORMATION and PARTICIPATION will appear and can be modified as required.



Mike Beda

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HISTORY

By Gene Redford

I found this info from a Washington Energy article, dated 6/17/2015, about Air Conditioning history and timeline.

Ever since the discovery of fire, heating has played an essential role in the design of human living spaces. But it's a little different with air conditioning.

Nowadays we have a hard time imagining the sweltering hot temperature of some locales without the luxury of a cool breeze from the central air conditioner blowing in our face. But the fact, people lived for centuries without cooling appliances.

Though they had nothing like modern-day A/C, human beings used little tricks to cool themselves since ancient times. Though dates aren't known for some of the early methods of cooling air, there's evidence of the use of A/C science that dates back millennia.

Ancient Egypt: Some evidence suggests that they understood the power of evaporation for cooling purposes. They were one of the first people to use a rudimentary form of A/C by hanging wet cloths in doorways to create an evaporation cooling effect. When the wind blew it produced a fresh breeze.

Ancient China: Air cooling can be traced back as early as 180 AD in China, and the time of Ding Huan. Huan invented a hand-cranked rotary fan that produced a breeze.

Ancient Rome: This Mediterranean empire created many ingenious inventions that made life easier; the aqueduct was one of the most famous. Aqueducts were used to pump water to various parts of the city, and even to individual homes. There is evidence of aqueducts that were routed inside the walls of wealthy Roman homes to circulate water and cool the air.

1758: Benjamin Franklin and his colleague John Hadley, professor at Cambridge University, gave a presentation on their investigation of the effects of evaporative cooling. They stated that evaporating inconstant liquids (such as alcohol) on the surface of water can cool an object to freezing.

1820: English inventor Michael Faraday successfully performed a similar experiment using ammonia, which was the volatile liquid used in the first modern A/C unit.

1830: Dr. John Gorrie, an American physician, began work on the first mechanical cooling apparatus ever recorded. It blew air through a cloth doused in ice-cold water. Though large and bulky, and requiring an unearthly amount of ice water to work, it had the power to cool a room by as much as 20 degrees.

1851: Dr. Gorrie patented his ice-cooling invention, which by this time was used specifically in hospital rooms. It was revolutionary in creating a healthier environment for treating yellow fever and other ailments.

I will continue this article to current time in next month issue.

Gene Redford

Chapter Historian



Gene Redford
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MEETING MINUTES

By Eric Mulliniks

Recording of Minutes

Chapter: Northeastern Oklahoma Chapter 069

Meeting Date: August 17, 2022

Meeting: August 2022 BOG

Attendance: 14

Compiled By: Eric Mulliniks

Attendees: Claire Farr, Keith Averitt, Pam Dunlap, Austin Whetstone, Austin Barton, Susan Crenshaw, Chad Smith, Saran Fazel, Zach Seizinger, Brian Biggerstaff, Eric Mulliniks, Ray Gomez, Matt Simmons, and Steve Johnson.

The NEOK August BOG Meeting was held at Elgin Park, 325 E Reconciliation Way, Tulsa, OK 74120. President Claire Farr called the meeting to order at 11:35 AM.

President: Keith Averitt

- Discuss priorities: Golf Tournament and initial chapter planning. The Golf Tournament is set to take place on September 29th, 2022 at 2:00 p.m. at LaFortune.
Discussed the need for cash, flags, hole sponsorship signs and swag for golf bags.
Discussed the MBO process, RVC contacts and PAOE points.
Discussed handoff of financials, newsletter documents, etc.
In person chapter lunch meetings will be held on the first Wednesday of the month beginning on October 5th, 2022 at the Tulsa Country Club.
The next Board of Governors meeting will be held on September 15th, 2022 at Elgin Park.
Discussed CRC Tulsa 2024 Chair.
Discussed Par 3 Golf Tournament. Ray Gomez and Nolan Chance are coordinating for the tournament to be held in April of 2023.
Announced the upcoming October ASPE/ASHRAE Convention in OKC - Pam Dunlap expounded further upon this topic.

Vice President: Matt Simmons

- Discussed the deadline for newsletter articles. Articles must be out prior to the next chapter meeting.

Treasurer: Austin Barton

- Discussed audit for past years and 2020-2021. CPA will handle QuickBooks. Bob Petre from McIntosh will handle bookkeeping. Summary of annual reports needed.
Discussed chapter donations.

MEETING MINUTES

By Eric Mulliniks

- The financial needs of the Golf Tournament were discussed.
- Discussed budget process and timeline (deadline set for chair budget requests).

Secretary: Eric Mulliniks

- Chapter meeting minutes for August emailed out today and in confirmation process. Need a couple of move votes for approval.

Attendance / Reception: Richard Shoemaker

- Richard Shoemaker has the QT gift cards for in person chapter lunch meetings.

CRC Delegate / PAOE: Claire Farr

- No Update.

CTT Chapter Programs: Michael Floyd.

- Discussed updates on meeting speaker planning.

Electronic Communications and Publicity: Austin Whetstone

- Discussed needs for website or social media.
- Austin Whetstone has updated the calendar.

GGAC: Chad Smith

- Discussed obtaining a presentation from Garen Eubanks to obtain POAE points.

Historian: Gene Redford

- No update.

Honors & Awards: Mike Beda.

- Suggested that we find an old or buy a new podium banner.

Membership Promotion: Brain Biggerstaff.

- Discussed potential events and participation.

Refrigeration: Eric Mulliniks.

- No update.

Research Promotion: Chad Marazas

- Discussed donor recognition and corresponding meeting.



MEETING MINUTES

By Eric Mulliniks

Special Events: Nolan Chance (Main) Duane Harmon, Ryan Dunkerson

- 2022 Golf Tournament is set to take place on September 29th, 2022 at 2:00 p.m. at LaFortune.
- Discussed the need for sponsorships and to get registrations out earlier than in previous years.
- Discussed Golf Tournament even preparation and help needed for day of event.

Student Activities: Sarah Fazel

- Student chapter being set up with TU.

Sustainability: TBD, Claire Farr reporting

- Email going out for anyone who wants to get involved in ASHRAE for this roll.

YEA: Zach Seizinger

- Discussed potential events and participation.

General Budget Review: All Parties

- Budget approval to be discussed.

New Items / Other Business: BOG Attendees

- Next BOG meeting on September 15th, 2022 at Elgin Park.

Meeting was adjourned at 12:46 pm.

Eric Mulliniks
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ericm@aaon.com

MEETING MINUTES

By Eric Mulliniks

Student Activities: Sarah Fazel

- Student Activities Chair has been very successful this year on generating interest and scheduling events.

Sustainability: TBD

- No update

YEA: Zach Seizinger

- No update

General Budget Review: All Parties

Budget Discussion

- Treasurer brought copies of the previous budget to the meeting to review as an example.
- Treasurer is currently working with an accountant on Audit of the previous year's budget.
- Line Item 207 will increase to \$800 from \$300 to include the funds for storing the NEOK ASHRAE historical items.
- Line Item 203 will take the remainder (\$515)
- Line Item 221 will increase to \$600 from \$100 to include the funds for monthly book-keeping as performed by an accountant, based on an estimated cost of \$35-\$50 monthly.
- Line Item 209 to be adjusted to reflect \$30 per meal, 31.5 meals per meal, for a total of 7 meetings per ASHRAE year, for the year of 2022-2023.
- Line Item 218 will increase from \$1000 to \$1500 in order to provide more funding for Student Activities.
- Line Item 219 will increase to \$800 from \$500.
- Line Item 220 will increase to \$2000 from \$1600

New Items / Other Business: BOG Attendees

Next month's BOG meeting date is To Be Determined.

Meeting was adjourned at 12:31 p.m.

2022/2023 Calendar of Events

Important Dates

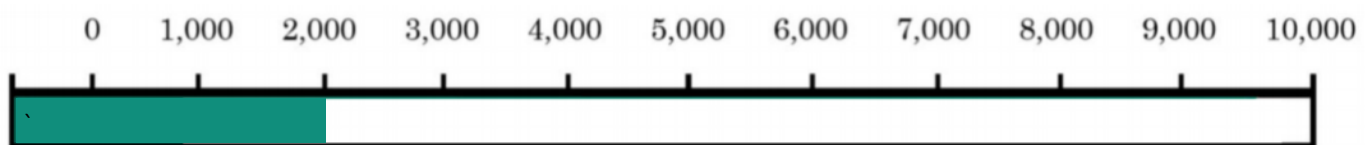
Meeting

Location

September 15, 2022	Board of Governors	Elgin Park
September 29, 2022	Golf Tournament	LaFortune Golf Course
October 5, 2022	Chapter Meeting (Lunch)	Tulsa Country Club
October 12, 2022	ASPE&ASHRAE EXPO	Oklahoma City Convention Cent
October TBD	Board of Governors	Elgin Park
November 2, 2022	Chapter Meeting (Lunch)	Tulsa Country Club
November TBD	Board of Governors	Elgin Park
November 2, 2022	Chapter Meeting (Lunch)	Tulsa Country Club
November TBD	Board of Governors	Elgin Park
December 7, 2022	Chapter Meeting (Lunch)	Tulsa Country Club
December TBD	Board of Governors	Elgin Park
January 4, 2023	Chapter Meeting (Lunch)	Tulsa Country Club
January TBD	Board of Governors	Elgin Park

Check back in each subsequent newsletter as new events will be added as they are scheduled.

2022/2023 NEOK PAOE Points





2021/2022 Chapter Volunteers

Officers

President	Keith Averitt	918-624-1005	kaveritt@eei-ok.com
President Elect	Matt Simmons	918-258-6890	msimmons@eda-fki-engineers.com
Treasurer	Austin Barton	918-359-9107	barton.a@mcintoshok.com
Secretary	Eric Mulliniks	918-640-1542	emulliniks@eei-ok.com

Board of Governors

BOG	Steve Johnson	918-955-4462	Steve.johnson55@cox.net
BOG	Chuck Mayfield	918-624-1005	cmayfield@eei-ok.com
BOG	Ray Gomez	918-584-0102	gomez@phillipsgomez.com
BOG	Mike Beda	918-706-8309	mikebeda1945@yahoo.com

Committee Chairs

CRC Delegate	Claire Farr	918-279-6450	cfarr@es2ok.com
CRC Alternate	Keith Averitt	918-624-1005	kaveritt@eei-ok.com
Attendance/Reception	Richard Shoemaker	918-812-2149	rrii@shoemakerac.com
Audit	Dan Owens	918-359-9110	owens.d@mcintoshok.com
CTT/Programs	Michael Floyd	918-836-0271	michael.floyd@leeandbrowne.com
GAC	Chad Smith	918-704-7905	chad@airetechcorp.com
Historian	Gene L. Redford	918-346-0444	glredbird@yahoo.com
Honors & Awards	Mike Beda	918-706-8309	mikebeda1945@yahoo.com
Membership Promotion	Brian Biggerstaff	918-219-4030	bbiggerstaff@eei-ok.com
Newsletter	Matt Simmons	918-258-6890	msimmons@eda-fki-engineers.com
Nominating	TBD		
Publicity / Social Media	Austin Whetstone	918-237-3663	austin@okchiller.com
Refrigeration	Eric Mulliniks	918-382-6432	ericm@aaon.com
Research Promotion	Chad Marazas	918-688-6784	cmmarazas@trane.com
Special Events Co-Chair	Nolan Chance	918-877-6000	nolanc@midwestmachinery.net
Special Events Co-Chair	Ryan Dunkerson	918-430-6793	rdunkerson@es2ok.com
Student Activities	Sara Fazel	918-584-9976	Sara.fazel@airetechcorp.com
Sustainability	TBD		
Webmaster/ECC	Austin Whetstone	918-237-3663	austin@okchiller.com
YEA	Zachary Seizinger	918-998-0007	zseizinger@eei-ok.com