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## UPCOMING EVENTS

- **May 3rd**  
Chapter Meeting  
11:30am to 1:30pm  
Tulsa Country Club

## PRESIDENT'S MESSAGE

By Keith Averitt

Proms, graduations, allergies – all signs that summer is right around the corner. The year is winding down, at least for ASHRAE. Our May meeting marks the end of the 2022-2023 year for the NEOK ASHRAE chapter. The newsletter will take the months of June and July off, which I know you are terribly disappointed about, but look for it again in August to provide information on the 2023 NEOK ASHRAE Golf Tournament.

The Chapters Regional Conference is being held April 28-30 in Monterrey, Mexico. We will be sending a good size contingent to represent you and the NEOK Chapter. There are 15 chapters in our region. We fall right about in the middle of the chapters in terms of membership with 7 of the chapters being larger than us, yet our performance in terms of money donated per person and active involvement as a chapter is right up there with the leaders. This last year we brought home awards for our newsletter and for our website among other awards.

I want to take a moment to thank every person reading this. If you have supported our chapter, either in active service or participation in meetings or in the form of making a monetary contribution to research promotion, we thank you very much. It has been an honor to serve as NEOK ASHRAE Chapter President for this last year. A few of my main goals this year was to increase contractor participation, as well as the involvement in the under 30 age group. I feel good about our accomplishments this year as a chapter. We had a strong year and we have a great line of leaders coming up behind me. Matt Simmons will be the president next year and I am excited about the prospects for our chapter in the coming year.

The years not over just yet! Make plans to come out for our last chapter meeting on May 3 for a presentation on "ASHRAE Standard 62.1 IAQP, Air Quality Standards". I'd love to see us finish the year with our biggest attendance this year!

*Keith Averitt*

**Keith Averitt**  
2022-2023 Chapter President  
[kaveritt@eei-ok.com](mailto:kaveritt@eei-ok.com)



## HONORS & AWARDS

By Mike Beda

The Region VIII CRC in Monterrey, Mexico is history. I hope you all had a chance to attend the event.

To recap this year, Honors & Awards Committee submitted 2 nominees for the Chapter Service Award and 1 nominee for the Regional Award of Merit. Our Delegate and Alternate to the CRC presented these at the Business session on Saturday afternoon. They were voted upon and will be sent to Society by the Regional Nominating Committee. We will know the results of each award next Spring at that CRC.

This year we also honored 1 individual with the Chapter Hall of Fame Award in March. Congratulation to Mark Fly this year.



**Mike Beda**  
918.706.8309  
[mikebeda1945@yahoo.com](mailto:mikebeda1945@yahoo.com)

## TREASURER REPORT

By Austin Barton

Our chapter's current net worth as of March 2023 is as follows.

1. NEOK General Checking Account (Checking)
 

Statement Period	3/01/2023 to 3/31/2023
Opening Ledger	\$ 29,770.34
Deposits	\$ 3,166.53
Expenditures	\$ 1,566.10
Closing Ledger	\$ 31,370.77
  
2. Invest/CRC Checking Account (Investment-CRC-Training)
 

Statement Date:	3/31/2023
Account Value:	\$35,284.69
  
3. Savings Account (Jack Tumilty Scholarship Fund)
 

Statement Period	3/01/2023 to 3/31/2023
Opening Ledger	\$ 26,533.41
Deposits	\$ 7.89
Expenditures	\$ 0.00
Closing Ledger	\$ 26,541.30
Account Value:	\$ 26,541.30
  
- Total Assets:                   \$93,196.76**



**Austin Barton**  
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## CHAPTER TECHNOLOGY TRANSFER/PROGRAMS

By Michael Floyd

Our May meeting's presentation will be by Dr. Marwa Zaatari. Her topic will be over ASHRAE Standard 62.1 IAQP. Dr. Marwa Zaatari is Partner at D ZINE Partners. She leads the research of "Air as a Service" around indoor air quality, filtration and air cleaning systems, and IAQ measurements to design and operate buildings for optimal energy and people efficiency. Dr. Zaatari has extensive experience in identifying and quantifying the sources, fate, and transport of indoor air pollutants, building energy and environmental management, assessing performance-based procedures of HVAC ventilation and air cleaning, and developing and applying models for energy efficiency, indoor air quality, exposure assessment, and economic impacts of indoor air pollution. Prior to founding D ZINE Partners, she was Vice President of Building Solutions at enVerid Systems since 2015, and currently serves on the Board of Advisors. She leads the design of ventilation and filtration/sorption systems in buildings, integration into HVAC systems, and was responsible for managing customer-site installation and ongoing operations and field service. Zaatari earned a PhD in Architectural and Environmental Engineering from the University of Texas at Austin with a focus on the built environment and a master's degree in engineering management from The American University of Beirut, Lebanon with a focus on energy management. Don't miss it 11:30am May 3, 2023 at Tulsa Country Club.

**Michael Floyd**  
918.836-0271

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## RESEARCH PROMOTION

By Chad Marazas

As we wrap up this ASHRAE 2022-2023 season I want to thank everyone for their donations and participation in our events. There is still time to donate see link below. We will update you soon on our final total raised for ASHRAE research and promotion.

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

**Chad Marazas**  
918.688-6784

[cmmarazas@trane.com](mailto:cmmarazas@trane.com)



## STUDENT ACTIVITY

By Sara Fazel

Happy May! As school is winding down, I am so excited to announce we have had 19 new student members join this past year. I'd like to extend a warm welcome to our two newest members, Chloe Rowland (ORU) and Caleb Neph (TU). Thank you to everyone who participated in the Student Activities we had set up this year, and all who supported the TU Student Chapter! A huge thank you to our scholarship panel!

Which brings me to scholarships.... Drumroll please..... Congratulations to Vincent and Anna for receiving the NEOK College Scholarship this year!

Vincent is a student at the University of Tulsa. He is the founder of The A.R.K. Project, an organization that helps engineers with education, communication and practical experience. In addition, Vincent was a Student Athlete, a defensive end for the Tulsa Golden Hurricanes! Vincent's interest in ASHRAE stems from the networking opportunities available. Congratulations Vincent!

Anna attends ORU, where she has consistently been an high achiever academically. She is also a student leader in many organizations, such as ASME. Anna grew up with a love for the environment, and has used that passion to inspire a project researching designs and technology for more energy-efficient housing. Through this project, Anna discovered the importance of furthering development of HVAC systems that are economically efficient and environmentally responsible. She looks forward to using this knowledge and developments in the field to contribute to a more sustainable future.

Congratulations again to our scholarship recipients.



**Sara Fazel**

918.584-9976

[Sara.fazel@airetechcorp.com](mailto:Sara.fazel@airetechcorp.com)

## 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/](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**

918.624.1005

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## GOVERNMENT AFFAIRS

By Chad Smith

As we come to the close of our ASHRAE year, I want to thank all of those who participated in GAC activities this year. There are things about our GAC program we should be proud of, but as always, there are more things to do.

One of the biggest things in GAC is the ongoing relationship building with our public officials so that we can continue to promote our industry and ASHRAE as an expert source they can depend on. One recent example is HB 2556 that passed the house and has been engrossed to the Senate. This bill proposes to move the OUBCC underneath the CIB as opposed to the OUBCC directly reporting to the state legislators. ASHRAE worked hard to get licensed engineers added to the mandatory positions on the committee and we are against HB 2556 because it creates the risk that these engineers recommendations may not make it to the legislature since they do not have that direct communication to it. We have been in contact with our state senators to encourage them to vote against this bill.

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 as well as ASHRAE's Public Policy Information Briefs. These are very good resources to share with public officials.

Lastly, don't forget to make the public officials you work with in your work circles about the ASHRAE certifications. This is one of the lowest cost certifications available in our industry and is a great way for these public entities to stay up to date with industry and code updates. The certification programs can be found here: <https://ashrae.org/professional-development/ashrae-certification>



We're already starting to think about additional events we can do next year to make ASHRAE the go to resource for public officials when it comes to anything related to HVAC.

**Chad Smith**

918.704.7905

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## ELECTRONIC COMMUNICATIONS

By Matt Simmons

Feel free to connect with us on LinkedIn or Facebook. As always, chapter information is offered on these two social media sites and our chapter website, [www.ashrae-neok.org](http://www.ashrae-neok.org).



Click on one of these logos to visit our pages.



## HISTORY

By Gene Redford

### History; final of article.

Home cooling systems got smaller after H.H. Schultz and J.Q. Sherman filed a patent for an air conditioning unit that could be placed on a window ledge. The units hit the market in 1932 but were not widely purchased due to their high cost.

Engineer Henry Galson went on to develop a more compact, inexpensive version of the window air conditioner and set up production lines for several manufacturers. By 1947, 43,000 of these systems were sold -- and, for the first time, homeowners could enjoy air conditioning without having to make expensive upgrades.

By the late 1960s, most new homes had central air conditioning, and window air conditioners were more affordable than ever, fueling population growth in hot-weather states like Arizona and Florida. Air conditioning is now in nearly 100 million American homes, representing 87 percent of all households, according to the Energy Information Administration.

### Efficiency Standards Drive Improvements

As air conditioning use soared in the 1970s, the energy crisis hit. In response, lawmakers passed laws to reduce energy consumption across the board, setting the stage for the Energy Department's Appliance and Equipment Standards Program, which establishes a single federal energy efficiency standard for air conditioner manufacturers rather than a patchwork of state-by-state standards.

Since 1992, the Energy Department has issued conservation standards for manufacturers of residential central air conditioners and heat pumps. The initial standard is expected to net about \$29 billion in energy bill savings from 1993 to 2023. The standard passed in 2006 is anticipated to result in around \$70 billion in energy bill savings from 2006 to 2035 and avoid more than 369 million metric tons of carbon dioxide emissions, equivalent to the annual greenhouse gas emissions of about 72 million cars.

The program has already driven huge efficiency improvements in new air conditioning technology that has helped consumers save energy and money. In fact, new air conditioners today use about 50 percent less energy than they did in 1990.

### The Future of Air Conditioning

In addition to appliance standards, the Energy Department's Emerging Technologies Program within the Building Technologies Office supports applied research and development that makes air conditioning more efficient and sustainable.

Right now, the program is working on the next big thing in air conditioning: non-vapor compression technology, which doesn't use HFCs that harm the environment, ushering in a new era of cooling. It's estimated that non-vapor compression technologies could reduce energy consumption by 50 percent.



**Gene Redford**

918.346.0444

[gredbird@yahoo.com](mailto:gredbird@yahoo.com)

## MEETING MINUTES

By Eric Mulliniks

### American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

1791 Tullie Circle, N.E.

Atlanta, GA 30329

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#### Recording of Minutes

**Chapter:** Northeastern Oklahoma Chapter 069

**Meeting:** March 9 BOG

**Attendance:** 9

**Meeting Date:** March 9, 2023

**Compiled By:** Eric Mulliniks

**Attendees:** Keith Averitt, Claire Farr, Zach Seizinger, Susan Crenshaw, Steve Johnson, Austin Barton, Eric Mulliniks, Nolan Chance, and Mike Beda.

The NEOK March BOG Meeting was held at Elgin Park, 325 E Reconciliation Way, Tulsa, OK 74120. President Keith Averitt called the meeting to order at 11:36 AM.

**President:** Keith Averitt

- CRC in Monterrey – Deadline approaching for early bird registration – March 15
- The Skeet Shoot Event will take place on March 31<sup>st</sup>. Ryan Dunkerson will send out registration instructions today. Event will be held at Red Castle. \$100 fee for skeet shoot.
- Chad Smith is heading up the nominating committee. Nominations to be completed by next month.
- The next Board of Governors meeting will be held on April 13<sup>th</sup>, 2023 at Elgin Park.

**Vice President:** Matt Simmons

- Discussed the deadline for newsletter articles.

**Treasurer:** Austin Barton

- Discussed adding budget performance update – actual vs. year to date.

**Secretary:** Eric Mulliniks

- No update

**Attendance / Reception:** Richard Shoemaker

- No update

**CRC Delegate / PAOE:** Claire Farr

- Printed copies of PAOE points.

**CRC Delegate / PAOE:** Claire Farr

- Printed copies of PAOE points.

**CTT Chapter Programs:** Michael Floyd.

- No update

**Electronic Communications and Publicity:**

- No update.

**GAC:** Chad Smith

- March 8 Capital visit. Chad Smith, Ben Dye, and Jeff Ferguson attended.
- Scholarships will be awarded in May.

**Historian:** Gene Redford

- No update

**Honors & Awards:** Mike Beda.

- The new, official banner is in!

**Membership Promotion:** Brain Biggerstaff.

- No update.

**Refrigeration:** Eric Mulliniks.

- No update.

**Research Promotion:** Chad Marazas

- No update.

**Special Events:** Nolan Chance (Main), Ryan Dunkerson

- The Par 3 Tournament will be held on April 13<sup>th</sup>, 2023 at 1:00 p.m. in place of the April chapter meeting. Lunch will be served at 11:30 a.m. and is included in fee. \$150 sponsorships at the tee boxes.

**Student Activities:** Sarah Fazel

- Presentation at ORU on March 8<sup>th</sup>.
- TU Chapter Greenheck planned.

**Sustainability:** No update.

**YEA:** Zach Seizinger

- March Madness Event planned for March 23<sup>rd</sup> at Fassler Hall

**New Items / Other Business:** BOG Attendees

- Next BOG meeting on April 13<sup>th</sup>, 2023 at Elgin Park.
- ASPE/ASHRAE Event. Should we renew the existing contract or get a new contract? Facilitate registration, etc. Booth layouts provided. Proposed date is October 11<sup>th</sup>, 2023 at the Cox Convention Center.

Meeting was adjourned at 12:25 p.m.



**American Society of Heating, Refrigerating,  
and Air-Conditioning Engineers, Inc.**

1791 Tullie Circle, N.E.

Atlanta, GA 30329

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**Recording of Minutes**

**Chapter:** Northeastern Oklahoma Chapter 069

**Meeting:** April 13 BOG

**Attendance:** 11

**Meeting Date:** April 13, 2023

**Compiled By:** Eric Mulliniks

**Attendees:** Keith Averitt, Ray Gomez, Matt Simmons, Richard Shoemaker, Chuck Mayfield, Steve Johnson, Austin Barton, Eric Mulliniks, Michael Floyd, Sarah Fazel, and Dan Owens.

The NEOK April BOG Meeting was held at Elgin Park, 325 E Reconciliation Way, Tulsa, OK 74120. President Keith Averitt called the meeting to order at 11:32 AM.

**President:** Keith Averitt

- CRC in Monterrey
- The Skeet Shoot Report: There were 5 teams comprised of 4 members each.
- April Golf Tournament update, **\*\*NEW DATE\*\***, April 20<sup>th</sup>. Any loose ends?
- CRC 2025 Update: Mike Beda and Dan Owens are coordinating.
- Final reports are due on 4/21/2023
- The next Board of Governors meeting will be held on May 11<sup>th</sup>, 2023 at Elgin Park.

**Vice President:** Matt Simmons

- Discussed the deadline for newsletter articles.
- Steve Johnson is taking inventory of historical items – working with Gene Radford

**Treasurer:** Austin Barton

- Discussed adding budget performance update – actual vs. year to date.
- Scholarships will be awarded in May.

**Secretary:** Eric Mulliniks

- No update

**Attendance / Reception:** Richard Shoemaker

- March meeting head count: 38 plus 9 life members
- 2 gift cards will be available for the May chapter meeting

**CRC Delegate / PAOE:** Claire Farr

- Printed copies of PAOE points.
- All committed are above par for PAOE

**CTT Chapter Programs:** Michael Floyd.

- ASHRAE 62.1 discussion as topic for May chapter meeting

**Electronic Communications and Publicity:**

- Par 3 Tournament date needs to be changed.

**GAC:** Chad Smith

- Waiting for RVC points for Outreach Day.

**Historian:** Gene Redford

- No update

**Honors & Awards:** Mike Beda.

- No update.

**Membership Promotion:** Brain Biggerstaff.

- No update.

**Refrigeration:** Eric Mulliniks.

- Scheduling tour at SWEP facility.

**Research Promotion:** Chad Marazas

- No update.

**Special Events:** Nolan Chance (Main), Ryan Dunkerson

- The Par 3 Tournament currently has 32 golfers (8 teams) signed up. Sponsorships are light.

**Student Activities:** Sarah Fazel

- Trying to retain 10 student members.
- 8 applicants for scholarships. Must be a member of ASHRAE.
- ORU is requesting research grant.

**Sustainability:** No update.

**YEA:** Zach Seizinger

- March Madness Event at Fassler Hall was successful.

**New Items / Other Business:** BOG Attendees

- Next BOG meeting on May 11th, 2023 at Elgin Park.
- ASPE/ASHRAE Event. Should we renew the existing contract or get a new contract? Facilitate registration, etc. Booth layouts provided. Date is October 13<sup>th</sup>, 2023 at the Cox Convention Center.
- Upfront annual fee of \$49.95
- Motion to fund registration fee made at 12:10 p.m. Austin Barton seconded the motion. Motion passed on 12:15 p.m.

Meeting was adjourned at 12:25 p.m.

**Eric Mulliniks**  
918.382.6432  
[ericm@aaon.com](mailto:ericm@aaon.com)



## 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 20, 2022	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 15, 2022	Board of Governors	Elgin Park
January 18, 2023	Chapter Meeting (Lunch)	Tulsa Country Club
January 12, 2023	Board of Governors	Elgin Park
February 1, 2023	Chapter Meeting (Lunch)	Tulsa Country Club
March 1, 2023	Chapter Meeting (Lunch)	Tulsa Country Club\
March 31, 2023	Skeet Shoot	TBD
April 13, 2023	Spring Golf Tournament	LaFortune Golf Course
April 27-29, 2023	Monterrey ASHRAE CRC	Monterrey, Mexico

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

## 2022/2023 NEOK PAOE Points

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000





## 2022/2023 Chapter Volunteers

### Officers

President	Keith Averitt	918-624-1005	<a href="mailto:kaveritt@eei-ok.com">kaveritt@eei-ok.com</a>
President Elect	Matt Simmons	918-417-9953	<a href="mailto:msimmons@eda-fki-engineers.com">msimmons@eda-fki-engineers.com</a>
Treasurer	Austin Barton	918-359-9107	<a href="mailto:barton.a@mcintoshok.com">barton.a@mcintoshok.com</a>
Secretary	Eric Mulliniks	918-640-1542	<a href="mailto:emulliniks@eei-ok.com">emulliniks@eei-ok.com</a>

### Board of Governors

BOG	Steve Johnson	918-955-4462	<a href="mailto:Steve.johnson55@cox.net">Steve.johnson55@cox.net</a>
BOG	Susan Crenshaw		<a href="mailto:SCrenshaw@harrisonenergy.com">SCrenshaw@harrisonenergy.com</a>
BOG	Ray Gomez	918-584-0102	<a href="mailto:gomez@phillipsgomez.com">gomez@phillipsgomez.com</a>
BOG	Mike Beda	918-706-8309	<a href="mailto:mikebeda1945@yahoo.com">mikebeda1945@yahoo.com</a>

### Committee Chairs

CRC Delegate	Keith Averitt	918-624-1005	<a href="mailto:kaveritt@eei-ok.com">kaveritt@eei-ok.com</a>
CRC Alternate	Matt Simmons	918-417-9953	<a href="mailto:msimmons@eda-fki-engineers.com">msimmons@eda-fki-engineers.com</a>
Attendance/Reception	Richard Shoemaker	918-812-2149	<a href="mailto:rjii@shoemakerac.com">rjii@shoemakerac.com</a>
Audit	Dan Owens	918-359-9110	<a href="mailto:owens.d@mcintoshok.com">owens.d@mcintoshok.com</a>
CTT/Programs	Michael Floyd	918-836-0271	<a href="mailto:michael.floyd@leeandbrowne.com">michael.floyd@leeandbrowne.com</a>
GAC	Chad Smith	918-704-7905	<a href="mailto:chad@airetechcorp.com">chad@airetechcorp.com</a>
Historian	Gene L. Redford	918-346-0444	<a href="mailto:glredbird@yahoo.com">glredbird@yahoo.com</a>
Honors & Awards	Mike Beda	918-706-8309	<a href="mailto:mikebeda1945@yahoo.com">mikebeda1945@yahoo.com</a>
Membership Promotion	Brian Biggerstaff	918-219-4030	<a href="mailto:bbiggerstaff@eei-ok.com">bbiggerstaff@eei-ok.com</a>
Newsletter	Matt Simmons	918-258-6890	<a href="mailto:msimmons@eda-fki-engineers.com">msimmons@eda-fki-engineers.com</a>
Nominating	Chad Smith	918-704-7905	<a href="mailto:chad@airetechcorp.com">chad@airetechcorp.com</a>
Publicity / Social Media	Austin Whetstone	918-237-3663	<a href="mailto:austin@okchiller.com">austin@okchiller.com</a>
Refrigeration	Eric Mulliniks	918-382-6432	<a href="mailto:ericm@aaon.com">ericm@aaon.com</a>
Research Promotion	Chad Marazas	918-688-6784	<a href="mailto:cmmarazas@trane.com">cmmarazas@trane.com</a>
Special Events Co-Chair	Nolan Chance	918-877-6000	<a href="mailto:nolanc@midwestmachinery.net">nolanc@midwestmachinery.net</a>
Special Events Co-Chair	Ryan Dunkerson	918-430-6793	<a href="mailto:rdunkerson@es2ok.com">rdunkerson@es2ok.com</a>
Student Activities	Sara Fazel	918-584-9976	<a href="mailto:Sara.fazel@airetechcorp.com">Sara.fazel@airetechcorp.com</a>
Sustainability	TBD		
Webmaster/ECC	Austin Whetstone	918-237-3663	<a href="mailto:austin@okchiller.com">austin@okchiller.com</a>
YEA	Zachary Seizinger	918-998-0007	<a href="mailto:zseizinger@eei-ok.com">zseizinger@eei-ok.com</a>