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UPCOMING EVENTS

- April 7th:
 Chapter Meeting
 (11:45 a.m.) online
- April 15th:
 Board of Governors
 Meeting (4:30 p.m.)
 online

Welcome!

The ASHRAE year is winding down and we are heading (virtually) towards CRC later this month. The CRC will be online only and hosted by Monterrey Mexico, which would have been an interesting place to visit in ordinary times. As I am writing this article, registration has just now opened up – you can register by clicking here. This conference provides excellent training and motivation for all committee chairs. This is also a great opportunity to attend for free without the usual travel and lodging expenses. In a normal year there would also be lots of opportunity to get to know peers from other chapters – hopefully next year is back to normal.

We have some great online meeting content planned for the last two meetings of the year. Please log in at 11:45 as we will try to cover a lot of ground before starting the main program speaker at noon. I will start it off with a very quick presentation called "This Is ASHRAE," which will be informative to some of our newer members. Next, this month is Student Activities Month, where we will be announcing some scholarship winners. After that, Chad Smith will give a brief recap of our annual "Day on the Hill" Government Affairs event that was held at the State Capitol last month.

Chances are looking reasonably good to resume in-person chapter meetings in the fall. I just got my first vaccine dose about a week ago, and we are seeing an impressive ramping up of the rate of vaccination all across the country. Many people I know found the vaccine rough for a day or more, but experts say that means it's working. Here's hoping our hospitality, dining, and live entertainment sectors can roar back to life soon.

Finally, we will have one opportunity to get together safely outdoors – the traditional



sporting clay event is coming back in May. See Ryan Dunkerson's article below, and expect to see more information in upcoming chapter emails. In the meantime, I will see you online on April 7 at 11:45!

Steve Uerling





CHAPTER TECHNOLOGY TRANSFER

By Rachel Spitler

Thank you to everyone who attended our March meeting. ASHRAE DL Pam Duffy gave us a presentation on "Productivity from Anywhere". It was also our first virtual multi-chapter meeting – we shared the meeting with Central Oklahoma and Central Arkansas chapters. We are looking forward to our next meeting, when Reece Robinson with Grundfoss will be giving us a presentation on packaged pumping. Please join us via Go-To Meeting on April 7!

In addition to the 2021 virtual summer conference, ASHRAE is planning two more topical conferences this year: <u>Ventilation 2021</u> is currently planned to be in-person in Toronto, ON August 15-18, and the <u>2021 Building Performance Analysis Conference</u> is scheduled for November 10-12 in Denver, CO. Also, don't forget that Region VIII's CRC is coming up on April 22-24 and will take place remotely.



Please check out ASHRAE's <u>online instructor-led courses</u> if you are in need of some training. There are four courses planned for the month of April.

Rachel Spitler 918.346.6836 RSpitler@cyntergy.com



YEA By Brian Biggerstaff

Please join us for our next Young Engineers in ASHRAE social event, for an evening of baseball on Tuesday, May 4th, to watch the Tulsa Drillers season opener.

We ask that all interested parties please reach out to Zach Seizinger or Brian Biggerstaff so we can reserve tickets in advance.

We invite all ASHRAE Members, and any of your coworkers to join us. If you have any questions, please feel free to reach out to Brian Biggerstaff directly at 918-219-4030.

We look forward to seeing everyone!

Brian Biggerstaff 918.624.1005 bbiggerstaff@eei-ok.com

RESEARCH PROMOTION

By Jason Blair

March was a great month for ASHRAE Research bringing in over \$22,000.00. Special thanks to AAON Corp. for their large annual donation of \$20,000.00, and to Harrison Energy Partners for continuing their annual donation at \$2,500.00.



Anyone else who would like to make a donation before the ASHRAE year ends, please reach out or visit the <u>ASHRAE RP website</u>.

Jason Blair 918.232.7654 iblair@harrisonenergy



ASHRAE® REGION VIII

Update!

Free registration is now open for the virtual CRC. Click here!



REFRIGERATION: Hot Gas Reheat Systems

By Eric Mulliniks

Application

A hot gas reheat coil is part of the unit refrigeration system. An additional refrigerant coil is mounted downstream of the DX evaporator cooling coil and a three-way valve diverts an amount of superheated refrigerant gas from entering the condensing coil and sends it to a reheat coil to control the supply air temperature after the cooling load has been satisfied. This helps to provide a dehumidification sequence of operation and prevents over cooling of the space.

All moisture removal is achieved with the evaporator coil, but supply air leaving air temperature and relative humidity are controlled by a reheat coil while in dehumidification mode.

Series Hot Gas Reheat

The reheat coil and condenser coil are piped in a series arrangement. This means that refrigerant will flow through the reheat coil and then to condenser coil when reheat is active upon a call for dehumidification. When reheat is inactive, the refrigerant will bypass the reheat coil completely and flow fully through the condenser coil.

The reheat valve can either be an on/off valve or a modulating type valve. When an on/off reheat valve is used, reheat capacity cannot be modulated and the air being delivered to the space has the potential to be too warm and thus over shoot the space temperature set point value. When a modulating valve is used, only an amount of superheated gas will be allowed to enter into the reheat coil ensuring a leaving air temperature that is needed to meet the space temperature and humidity set points is being delivered.

Series reheat systems are designed to recover only part of the total heat of rejection of the refrigeration circuit. The remaining capacity will be handled by the condenser coil. Typically, the reheat coil is a traditional fin and tube coil. However, an aluminum composite micro-channel coil can also be used.

Parallel Modulating Hot Gas Reheat

The reheat and condenser coils are piped in a parallel arrangement. The reheat capacity is regulated by the DDC controls and a modulating three-way control valve that diverts a varying percentage of the superheated gas entering the condenser coil and to the reheat coil to control the reheat leaving air temperature. Refrigerant leaving the reheat coil is piped directly to the inlet of the expansion valve, bypassing the condenser coil completely.

With the option to put the full load of the refrigerant circuit through either the condenser coil or the reheat coil as needed, the parallel reheat coil is sized to handle 100% of the total heat of rejection of the refrigeration circuit.



During operation, if the full reheat capacity is called for, the reheat coil in this configuration will function as the main condenser. When there is no demand for reheat, the full heat of rejection will be handled by the condenser.

When necessary or when design criteria calls for it, this can also be applied to a lag circuit(s). This is ideal for applications such as natatoriums, indoor horticulture or for 100% outside air applications where the outside air conditions are fairly harsh.

Eric Mulliniks 918.382.6432 ericm@aaon.com

HONORS & AWARDS

By Mike Beda

The Region VIII CRC is set to be April 22 thru 24. The Monterrey, Mexico chapter will be the host this year. You can register by clicking here. Please plan to attend all or parts of the event.

I have submitted one nomination for the Chapter Service Award to the Regional Nominating Committee this year. The name will be reviewed by the Chapter Delegates and Alternates during the Saturday afternoon session. The award will be presented at the 2022 CRC if everything is correct.

I hope you had a chance to attend the March virtual chapter meeting. We inducted one member into the Chapter 'Hall of Fame'. He is:

Mr. Keith Browne was the 51st chapter president during the 1999/2000 ASHRAE year. He is a graduate mechanical engineer from the University of Missouri in 1971 and joined Black & Veatch Consulting Engineers in Kansas City. In 1977, he moved to Tulsa where he joined Penafeather & Lee Engineers. He soon became a principal in the firm and the name became Lee & Browne Consulting Engineers. He is the 5th chapter president to win the Regional 'Golden Gavel Award', as best chapter president of that year. Keith's other awards include Chapter Service Award and Regional Award of Merit. He has also served as co-chair of the 2012, CRC in Tulsa. Keith was instrumental in starting, administrating, and supporting the chapter's 'Jack E.

Tumilty Endowed Scholarship Award' for a Tulsa area high school senior enrolling in an engineering degree program. He is currently semi-retired and still actively attends chapter meetings.

Mike Beda 918.706.8309



STUDENT ACTIVITIES

By Jacob Koch

Jacob Koch here with a Student Activities update. I am excited to announce the NEOK college scholarship has 6 winners. NEOK will provide \$4800 worth of scholarships with help from Dan Owen from Mcintosh and Jason Blair from Harrison Energy. The scholarships will go to students from OSU Okmulgee. The names of the winners will be released in the upcoming days. Good day for the HVAC community!

There are job shadowing opportunities are available for students interested in engineering. Contact me at jacob.koch@leeandbrowne.com for anyone interested in HVAC engineering field.

Also there is a \$1000 scholarship in the name of Tulsa engineer Jack E. Tumilty to a Tulsa metropolitan area graduating high

school senior who will be entering the study of mechanical engineering at a college of their choice in the fall. If anyone knows any students that would be a good candidate for the scholarships, please direct them to the NEOK ASHRAE website.

Jacob Koch 918.836.0271 Jacob.Koch@LeeandBrowne.c

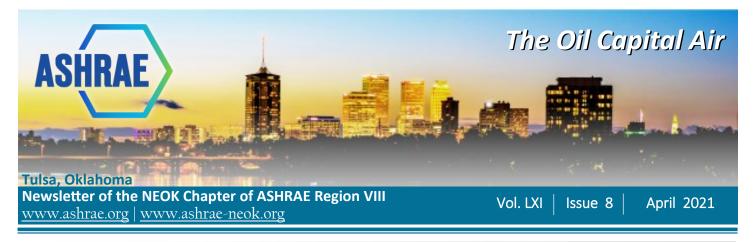
SPECIAL EVENTS

By Ryan Dunkerson

Let's go shoot! It's coming up on our annual sporting clays tournament in May. Start pulling your shotguns out and getting them cleaned up and ready. We will be hosted by Red Castle Gun Club again this year and we will be having a 60 target tournament followed by a 40 target team flurry. Be sure to start putting your squads together and get out and practice! Be looking for the flyer as it should be sent out over the next couple of weeks.

We are also looking for sponsors for the event. We are looking for sponsors for food, drinks, door prizes, HOA Team, HOA Male, HOA Female, and a sponsor for the flurry. If you or your company would like to sponsor a portion of the event please get in contact with me.

Ryan Dunkerson 918.430.6793 rdunkerson@es2ok.con



MEMBERSHIP PROMOTION

By Eric Mulliniks

Chapter reports for the month of April currently show that we have 194 members, 184 of which are non-student members. I have received several lapsed member notifications and have sent emails prompting these members to renew their memberships.

We have two new members in our local chapter that I would like to recognize. Please welcome Karina Saenz Acosta from AAON and Brandon Gambrell from JE Dunn Construction to the fold. I would also like to welcome Richard Shoemaker III back to the fold as well.

We thank you for your membership and encourage you to renew promptly when your membership comes due. If you don't know when your membership renews please take a moment to login to www.ashrae.org and check your membership status and renewal date, and while you are there check your bio to make sure all the information is correct and up to date.

Eric Mulliniks 918.382.6432 ericm@aaon.com

ELECTRONIC COMMUNICATIONS

By Matt Petersen

Just a friendly reminder that this year's CRC is going to be a virtual event. If you are a chair in NEOK please make the time to attend your workshop. The best part is we should all be able to attend our workshops since we are not having to travel. So, there should be no excuses this year.

Please do not forget to follow us on Facebook and become one of our connections on LinkedIn. We provide our chapter information via these two social media sites and our chapter website, we would hate for you to miss out on some interesting topics and events. Please go to www.ashrae-neok.org, Facebook or LinkedIn.



Click on one of these logos to visit our pages.



Matt Petersen 918.978.9543

petersenmatthewe@gmail.con





TREASURER REPORT

By Keith Averitt

No transactions occurred in the month of March. Our current balance stands at \$42,926.65. Thanks!

Keith Averitt 918.624.1005 kaveritt@eei-ok.com



GGAC

By Garen

Our members visited the state capitol on March 23rd and April 6th to share our perspective with our state legislators, especially about HB1818 and SB148. We have asked legislators to vote NO on HB1818 because it would remove the independence of the OUBCC in setting building codes by putting the OUBCC under the Construction Industries Board staff.

As you likely know, through a joint effort between the COK and NEOK chapters of ASHRAE, we were able to get SB 148 sponsored in the Senate earlier this year. This bill adds 2 positions to the Oklahoma Uniform Building Code Commission (OUBCC) and sets the requirement that those 2 positions be filled by professional engineers licensed by the State of Oklahoma. The OUBCC was created by statute in 2009 and its purpose is to "establish minimum statewide code requirements affecting or relating to the built environment...". This would include building codes, mechanical codes, electrical codes, fire codes, and plumbing codes.

Currently, 6 of the 11 members that make up the commission are contractors and there are no requirements for licensed engineers on the commission. A contractor's focus is to make sure quality individuals are performing these construction tasks and they are complying with contract documents and code requirements. However, it is the licensed engineers of this state that provide the design and signed and sealed project drawings, and they must know not only the current code requirements but also why they exist to provide a design that ensures the safety of the general public. The addition of the engineers to the OUBCC will expand the knowledge and experience of the commission so they can make the best decision for the state when evaluating codes and making recommendations to the legislature.

We encourage the legislators to vote YES for SB148.

Garen Ewbank 405.826.8156



HISTORY By Gene Redford

Here is list of the early NEOK chapter presidents, starting with the first president. I thought the new members might like to know more about our early members.

- **W. R. Lee,** who was one of the charter members and the first president in 1948/49 and also served a second year 1949/50. Also remember, back than it was ASHVE. Bob was building manager for the Beacon Building. Bob has passed away.
- **A. D. "Ike" Holmes,** a charter member, served as the second president 1950/51. Ike was a partner with his brother with Plumbing Supply Company of Tulsa and was known for carrying the largest supply of oddball pipe and fittings in Tulsa. Ike passed away in 1975.



R.F. Shoemaker

R. F. Shoemaker, a charter member, served as the third president 1951/52. Richard joined his father Forrest Shoemaker, in the air conditioning company in 1946 with a B.S. in Mechanical Engineering from Purdue University and obtained his P.E. in 1963. Richard's son Rick Jr. is the third generation active in the family business still today. Richard has passed away.

Clarence H. Dollmeyer a charter member served as the fourth president in 1952/53 and again in 1957/58. He was the second president to have served two terms. Clarence was the first president to have a social hour before the meeting started. Clarence was with Collins and Gould Engineering in 1952, he later joined Black and West Architects in 1954 then joined the firm of Netherton, Dollmeyer and Solnox in 1956. Clarence later joined the Benham Group and Decision Engineering in Edmond, Oklahoma.



J. Neal Watt

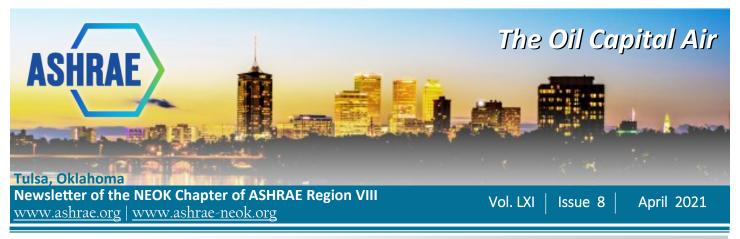
J. Neal Watt, a charter member, served as the fifth president in 1953/54. Neal graduated from Oklahoma University in 1947 and joined the company business of Watt Plumbing Company. The company later entered into full HVAC field as a mechanical contractor. Neal's son Alan joined the company in 1976 and joined ASHRAE. Neal sold the company and started a consulting firm of J. Neal Watt & Associates. Neal has passed away in 2008.



R.W. Winget

R. W. Winget a charter member served as the sixth president in 1954/55. Pete joined the O'Conner Company in 1937 in Wichita, KS, and moved to Tulsa with the company in 1945. Pete retired from O'Conner Oklahoma Company in 1977 as president. Pete was very active in the HVAC work in Tulsa during his time here. The chapter had grown to 60 members and was meeting at the University of Tulsa. Pete has passed away.

Gene Redford 918.346.0444 alredbird@yahoo.com



MEETING MINUTES

By Matt Simmons

Recording of Minutes

<u>Chapter:</u> Northeastern Oklahoma Chapter 069 <u>Meeting Date:</u> March 03, 2021

Meeting: March 2021 Chapter Meeting

Attendance: Total 31 attendees from Northeastern OK Compiled By: Matt Simmons

March Chapter Meeting which was a Joint meeting with Central Oklahoma and Northwest Arkansas chapters (attendance number above only indicates NEOK attendees). Meeting Held virtually via Zoom on 03/03/2021.

- Steve Uerling called meeting to order at 11:45 and gave Auction update and opening message.
- Mike Beda gave Honors and awards remarks and presentation and virtually presented the 2021 Northeastern Oklahoma Chapter Hall of Fame Award to Keith Browne. Actual award to be hand delivered at a future date.
- Steve Uerling gave update on meeting procedure for joint meeting presentation portion of the meeting.
- Rachel Spitler introduced the speaker, Pam Duffy.
- Steve Uerling adjourned breakout section of the meeting and turned it over to the joint presentation portion of meeting.
- At 12pm Zoom meeting was merged with Central Arkansas and Central Oklahoma chapters for Distinguished Lecturer Presentation.
- Heather Martin introduced Distinguished Lecturer Pam Duffy.
- Distinguished Lecturer Pam Duffy gave presentation, "Productivity from Anywhere".
- Speaker conclude presentation and opened for questions.
- Heather Martin provided closing comments and adjourned meeting.

End of meeting minutes

Recording of Minutes

<u>Chapter:</u> Northeastern Oklahoma Chapter 069 <u>Meeting Date:</u> March 25, 2021

Meeting: March 2021 BOG

Attendance: 16 <u>Compiled By:</u> Matt Simmons

<u>Attendees:</u> Matt Simmons, Steve Uerling, Matt Petersen, Claire Farr, Mike Beda, Jacob Koch, Rachel Spitler, Austin Barton, Brian Biggerstaff, Keith Averitt, Dan Owens, Ray Gomez, Duane Harman, Nolan Chance, Eric Mulliniks, Steven Johnson.

The NEOK March BOG Meeting (Research and Promotion Month) was held virtual via GoToMeeting. Chapter President Steve Uerling called the meeting to order at __4:36__ PM.

(Continued)



MEETING MINUTES (continued)

By Matt Simmons

President: Steve Uerling

- Called meeting to order
- If you have not watched the sexual harassment video please do so.
- April is student activities month.
- Still gathering applications for Tumilty scholarship.
- Discussed having "This is ASHRAE" slide show that we want to show at the beginning of next chapter meeting. Presented slide show to the board as a trial run.
- Discussed how we what to announce scholarship recipients.
- Suggestion was to send out an email.

President Elect: Claire Farr

Newsletter articles due by April 1st. Please have all required articles submitted by then.

CRC Delegate: Duane Harmen

- Registration for CRC does not look to be open yet but should start preparing for CRC.
- Gave update on PAOE points for different chairs.
- Have a check for Treasure need to drop off.

Treasurer: Keith Averitt

- Confirmed that funds for auction have been received.
- No other transactions recently.
- Discussion on how much to send for RP.
- Discussion on how to get audit done sooner as it has been behind schedule.

Secretary: Matt Simmons

- Last month Meeting minute were submitted and approved.
- Confirmed number of attendees.

YEA: Brian Biggerstaff

• Working on an event in about 6 weeks and will update when that is locked in.

CTT Chapter Programs: Rachel Spitler

- Reece Robinson will be the speaker for April's chapter meeting with presentation on packaged pumping
- May speaker is setup.



MEETING MINUTES (continued)

By Matt Simmons

Membership Promotion: Eric Mullininks

Set up for how to get to par on points.

Research Promotion: Jason Blair

• No update.

Special Events: Nolan Chance

No Update.

Student Activities: Jacob Koch

• There were 6 society scholarship application and thanks to member donations all 6 will be awarded a scholarship.

GGAC: Garen Ewbank

No update

Sustainability: Robert Schatz

No update

Webmaster and Publicity/Social Media: Matt Petersen

Everything going good for website and social media to meet points.

Attendance: Pam Dunlap

No Update

Awards: Mike Beda

No Update

History:

No Update

New Business:

No new Business

Meeting was adjourned at 5:30 pm.



Matthew Simmons 918.417.9953

<u>msimmons@eda-fki-engineers.com</u>

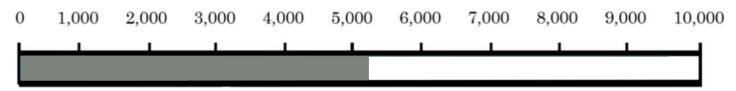


2020/2021 Calendar of Events

Important Dates	Meeting	<u>Location</u>	
September 17, 2020	Golf Tournament	LaFortune Golf Course	
September 24, 2020	Board of Governors	Online	
October 7, 2020	Chapter Meeting (Lunch)	Online	
October 15, 2020	Board of Governors	Online	
November 4, 2020	Chapter Meeting (Lunch)	Online	
November 12, 2020	Board of Governors	Online	
December 2, 2020	Chapter Meeting (Lunch)	Online	
December 10, 2020	Board of Governors	Online	
January 13, 2021	Chapter Meeting (Lunch)	Online	
January 21, 2021	Board of Governors	Online	
February 9-11, 2021	ASRHAE Winter Conference	Online	
February 10, 2021	Chapter Meeting (Lunch)	Online	
February 18, 2021	Board of Governors	Online	
March 3, 2021	Chapter Meeting (Lunch)	Online	
March 11, 2021	Board of Governors	Online	
April 7, 2021	Chapter Meeting (Lunch)	Online	
April 15, 2021	Board of Governors	Online	
April 22-24, 2021	CRC	Online	
May 5, 2021	Chapter Meeting (Lunch)	Online	
May 13, 2021	Board of Governors	Online	
June 26-30, 2021	ASHRAE Annual Conference	Online	

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

2020/2021 NEOK PAOE Points





2020/2021 Chapter Volunteers

Officers

	President	Steve Uerling	918-836-0271	steve.uerling@leeandbrowne.com		
	President Elect	Claire Farr	918-279-6450	cfarr@es2ok.com		
	Treasurer	Keith Averitt	918-624-1005	kaveritt@eei-ok.com		
	Secretary	Matt Simmons	918-258-6890	msimmons@eda-fki-engineers.com		
Board of Governors						
	BOG	Brian Biggerstaff	918-219-4030	bbiggerstaff@eei-ok.com		
	BOG	Austin Barton	918-270-1414	barton.a@mcintoshok.com		
	BOG	Ray Gomez	918-584-0102	gomez@phillipsgomez.com		
	BOG	Mike Beda	918-706-8309	mikebeda1945@yahoo.com		
	BOG	Steve Johnson	918-935-1266	Steve.johnson55@cox.net		
Committee Chairs						
	CRC Delegate	Duane Harman	918-382-6173	duaneh@aaon.com		
	CRC Alternate	Steve Uerling	918-836-0271	steve.uerling@leeandbrowne.com		
	Attendance/Reception	Pam Dunlap	918-587-4747	pbdunlap@matrixae.com		
	Audit	Chad Smith	918-665-6600	chad@airetechcorp.com		
	CTT/Programs	Rachel Spitler	918-346-6836	RSpitler@cyntergy.com		
	GGAC	Garen N. Ewbank	405-826-8156	gewbank@geotctest.com		
	Historian	Gene L. Redford	918-346-0444	glredbird@yahoo.com		
	Honors & Awards	Mike Beda	918-706-8309	mikebeda1945@yahoo.com		
	K-12 STEM	Cheyenne Reynolds	918-224-6560	creynolds@sapulpaps.org		
	Membership Promotion	Eric Mulliniks	918-382-6432	ericm@aaon.com		
	MP Co-Chair	Brian Biggerstaff	918-219-4030	bbiggerstaff@eei-ok.com		
	Newsletter	Claire Farr	918-279-6450	cfarr@es2ok.com		
	Nominating	Joel Karsetter	918-665-3974	<u>ikarstetter@abscompanies.com</u>		
	Publicity / Social Media	Matt Petersen	918-978-9543	petersenmatthewe@gmail.com		
	Refrigeration	Eric Mulliniks	918-382-6432	ericm@aaon.com		
	Research Promotion	Jason Blair	918-232-7654	jblair@harrisonenergy.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	Jacob Koch	918-836-0271	Jacob.Koch@Leeandbrowne.com		
	Sustainability	Robert Schatz	918-836-0271	Robert.Schatz@leeandbrowne.com		
	Webmaster/ECC	Matt Petersen	918-978-9543	petersenmatthewe@gmail.com		
	YEA	Brian Biggerstaff	918-219-4030	bbiggerstaff@eei-ok.com		
	YEA Co-Chair	Zachary Seizinger	918-998-0007	zseizinger@eei-ok.com		
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This newsletter describes the activities of ASHRAE Chapter 069 of the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE).

It does not present official positions of the Society nor reflect Society policy.

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