



# The Comfort Chronicle

American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.  
East Texas Chapter #091, Region VIII

Volume XXVIII, Issue III, November 2008

www.ashrae-etex.org

## Refrigeration Equipment Installation

By Bill Stiles

While the basic competencies required to install air conditioning and refrigeration equipment are the same, differences in temperature and pressure ranges and run times present different problems and emphasis for installers. Since most refrigeration equipment must run most of the time year-round, consideration should be given to the complete, balanced refrigeration cycle by the installers. What does this mean, and how is it accomplished? We know, for example, that we have to provide a properly subcooled liquid to our tevs to insure that our evaporators are as active as they can be, and still return superheated refrigerant to our compressor. Proper pipe sizes and insulation play a role in this function. If the piping runs are long, insulated liquid lines or a heat exchanger may be required to insure a liquid head to the tev. Sizing and insulation of suction piping will help provide the desired superheat.

Over the years winter operation presented serious problems for the refrigeration industry. Typically, fan cycling controls were used throughout the industry to provide head pressure stabilization. These controls allowed tevs to feed refrigerant without undue hunting during cold weather, but would often overshoot the desired pressure ranges if strong winds were blowing. It wasn't until recent research with floating head pressures and balanced port tevs that we realized that as long as we provided a liquid head to the tevs, the system would operate well at lower condensing pressures. Heat reclaim systems have lost some of their popularity because of this, but there are trade-offs for everything.

When America decided to change its mind about what a large cold drink was, the requirement for a bigger and better remote ice machine came about. Commercial ice machines do not make use of floating head pressure, but rely on condenser flooding to provide stable condensing pressures for winter operation. Most of these units can operate within the range of 110 F to -10 F with no refrigerant adjustment.

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### November Meeting

Date: January 15, 2009  
Location: Brookshire's milk plant  
109 N. Clayton @ E. Erwin  
Cost: Adults \$12, Student Members free.  
Schedule: 11:15 Check-in  
11:30 Lunch  
12:00 Program  
1:00 Adjourn  
Program: "Milk refrigeration tour"  
Speaker: Lance Kennemer  
Please RSVP to:  
Sheri McLain, phone 903-581-3391,  
fax 903-579-7862 -  
email [sheri.mclain@trane.com](mailto:sheri.mclain@trane.com)  
RSVP by Tuesday January 13 or cost is \$20  
For full schedule, see Page x or website.

### Board of Governors Meeting

TJC White Center Board room  
Meet @ 7 AM on January 15<sup>th</sup>

### Future ASHRAE Society & Regional Meetings

2009 Winter Meeting January 24-28  
Chicago, IL, Palmer House Hilton  
For more information, See  
<http://www.ashrae.org/events/page/1925>  
Region VIII CRC 2009 April 23-25  
Lubbock, TX  
2009 ASHRAE Annual Meeting June 20-24  
Louisville, KY

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**Editors Notes:**

Some provision for refrigerant migration must be made by the installer. Remote refrigeration units using tevs and liquid line receivers are charged with enough refrigerant to prevent problems during the off-cycle. Most of the units are equipped with crankcase heaters which help with flooding and slugging, but do not provide the complete answer. Installers often use liquid line solenoid valves to pump the system down when the system temperature is reached or during system defrost. Refrigerant is stored in the receiver and condenser until the defrost is terminated or the unit calls for cooling. The pump down system assures that refrigerant will not migrate to the lowest, coldest spot in the system, helping extend compressor life and providing better system performance.

Refrigeration equipment installers have other concerns that affect their installations. Lower evaporator temperatures inhibit the safe return of oil to the compressor crankcase requiring properly sized, reamed, and sloped suction lines. Ice build-up on evaporator coils may lead to excessively low superheats causing damage if ice isn't removed by timed or demand defrost periods. Drain lines must be heated and insulated to allow drain water to be removed from drain pans.

This list goes on, but mercifully, I won't extend it. Aside from these few differences and a few more, air conditioning and refrigeration equipment installations are pretty much the same.

The cast and crew of the East Texas ASHRAE newsletter "The Comfort Chronicle" hopes that everyone has had a Merry Christmas and (so far) a happy new year. I apologize for not getting the newsletter out sooner and with all the usual articles, but I wanted an end of the year vacation as I am sure that several of you also did. Please hold out to next month's newsletter for a return of all our usual articles. The East Texas chapter board of governors hopes that everyone has a blessed 2009.

**Membership Promotions reminder:**

All members are honorary membership promotions committee members and are encouraged to recruit new members as the opportunity presents itself. If you have a potential new member, please refer them to your Membership Promotion Chair (Clinton Odom), or to any BOG member if they need assistance registering for membership on the ASHRAE website. (<https://eweb.ashrae.org/eweb/DynamicPage.aspx?webcode=verify>)



**ASHRAE Region VIII**  
**January 26, 2009**  
**Monday Night**  
**6:00 PM to 8:30 PM**



Please RSVP to  
 John L. Harrod  
 Assistant Regional Chair  
[John.Harrod@Benham.Com](mailto:John.Harrod@Benham.Com)  
 (405) 607-6110  
 Fax (405) 475-5660

**Reservations are required**

The Kinzie Chophouse  
 is a short taxi ride from  
 the ASHRAE Headquarters  
 Hotel.

With A Visit Expected From  
 Our Society President William  
 Harrison and Our First Lady,  
 Margaret.

Salad Choices:

**Caesar Salad**

Entrée Choice of:

**16 Oz. Kinzie Cut (Bistro Steak) Served  
 with Herbed Garlic Butter**

**Herb Crusted Salmon  
 Served with a Whole Grain Mustard Sauce**

**Chicken Breast Parmesan  
 Served With Spaghetti and Marinara  
 Sauce**

Side:

**Grilled Vegetables**

Dessert:

**Crème Brulee**

Beverages:

**Soda, Coffee and Tea**

**Price: \$60.00 per person**

<http://kinziechophouse.com/>

Web Master Leslie Zinger reports: I am currently working on setting up my new computer for updating the ASHRAE local chapter website, and I discovered that we had a statistically significant increase in website traffic during the month of November. I think the root cause may be the newsletter article in November's edition of the Comfort Chronicle. I thought it was neat to see how advertising makes an effect!



The most popular subpages include the chapter officers page, the regional information page, and the past newsletters page, with an honorable mention for the membership promotion page.

## Make plans now to attend the 2009 CRC

### CRC 2009 Lubbock, TX

CRC (Chapter Regional Conference) the annual meeting for all 15 chapters in ASHRAE Region VIII. The CRC is a golden opportunity for all the chapters to come together and learn about and from each others. The conference also gives everyone an opportunity to meet and fellowship together. CRC ends with the big event of the awarding of the Golden Gavel to the best chapter of the year.

Each year a different chapter hosts the CRC and opens their doors to the Region.

#### CRC 2009 General Chair: Mike Powell

Anthony Mechanical Inc.  
 PO Box 3886; 525 E 40th Street  
 Lubbock, TX 79452  
 Phone (806) 747-4151  
 Fax (806) 747-7733  
[mike@anthmech.com](mailto:mike@anthmech.com)

#### Co-Chair for 2009 CRC: Roger Roe

CHE Inc.  
 P.O. Box 6038; 2405 114th Street  
 Lubbock, TX 79423  
 Phone (806) 745-6692  
 Fax (806) 745-3462  
[rogerr@cheincorp.com](mailto:rogerr@cheincorp.com)

For the latest ASHRAE information, see the "ASHRAE Press Releases" section at

<http://www.ashrae.org/pressroom/>

## East Texas Chapter Member Honored

Normally we reserve this space for East Texas members that have been honored during the preceding month. This time we are celebrating the arrival of Levi Schaefer.



Dear All,  
Levi Jameson Schaefer was born at 7:49 AM on Monday, December 22nd. He was 8.5 lbs and 19.5 inches tall. Here are two of our favorite pictures from the hospital and Levi's first full day at home - Christmas! James & I know of no better present!

Regards,  
Kristin

P.S. if you are part of one of our groups (family, church, Trane, TM, ASHRAE) and don't see the others, please feel free to pass these photos along...We are a few naps short of our quota & would appreciate the help!

If you know of any member of our chapter that deserves a shout out for an accomplishment or honor, please let me (Clinton Odom), or any chapter officer know so we can include it in the next newsletter.



# ASHRAE

## East Texas Chapter (091) 2008-2009 Program Schedule



Meeting	Date	Time	Presenter	Company	Location	Topic
<b>September</b>	18, Thu	11:15AM - 1:00PM	Roger Box, Maintenance Director	Caldwell Zoo	2203 W ML King Jr Blvd Tyler, TX 75702	<b>Animal Comfort Control &amp; Food Preservation Tour</b>
<b>October</b>	16, Thu	11:15AM - 1:00PM	Tim Cauley	Trane	Trane 6200 Troup Hwy Tyler, TX 75707	<b>Rapid Prototyping</b>
<b>November</b>	20, Thu	11:15AM - 1:00PM	Andy Heinze	Parker/Sporlan	Trane 6200 Troup Hwy Tyler, TX 75707	<b>Today's Supermarkets</b>
<b>January</b>	15, Thu	11:15AM - 1:00PM	Lance Kennemer	Brookshire's	Brookshire's Milk Plant	<b>Milk Refrigeration Tour</b>
<b>February</b>	19, Thu	6:00PM - 8:30PM	E-Week Committee	TSPE	UT-Tyler	<b>Joint Engineering Society Banquet</b>
<b>March</b>	19, Thu	11:15AM - 1:00PM	William "Bill" Harrison	ASHRAE Society President 2008- 2009	Trane 6200 Troup Hwy Tyler, TX 75707	<b>Maintain to Sustain</b>
<b>April Satellite Broadcast</b>	22, Wed	11:30AM - 3:00PM	Panel	ASHRAE	Trane 6200 Troup Hwy Tyler, TX 75707	<b>Satellite Broadcast Topic: Indoor Air Quality</b>
<b>CRC</b>	23 to 25- Apr-09	All day	Various	ASHRAE	Lubbock	<b>CRC</b>
<b>May</b>	21, Thu	11:15AM - 1:00PM	TBD		TBD	<b>TBD</b>



**American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.**  
**East Texas Chapter #091, Region VIII**  
**PO Box 9464, Tyler, TX 75711-9464**

**2008-2009 CHAPTER OFFICERS**

Kristin Schaefer	President	903 581-3289	kristin.schaefer@trane.com
OPEN	President-Elect		
Stan Wilkins	Secretary	903 510-7361	Stan.Wilkins@carrier.utc.com
Bill Stiles	Treasurer	903 510-3753	bsti@tjc.edu

**BOARD OF GOVERNORS**

Dick Cawley	BOG	903 566-3957	dickcawley@suddenlink.net
Robert Helt	BOG	903 581-3651	robert.helt@trane.com
Jeff Stewart	BOG	903 581-9157	jeff.stewart@trane.com
Rhamy Morrison	BOG	903 581-9101	rhamy.morrison@trane.com

**COMMITTEE CHAIRS**

Don Schuster	Historian	903 510-7440	don.schuster@carrier.utc.com
Clinton Odom	Delegate	903 509 7292	clinton.odom@trane.com
Stan Wilkins	Alternate Delegate	903 510-7361	Stan.Wilkins@carrier.utc.com
Rhamy Morrison	Research Promotion	903 581-9101	rhamy.morrison@trane.com
OPEN	Newsletter Editor		
Don Schuster	Chapter Technology Transfer (CTTC)	903 510-7440	don.schuster@carrier.utc.com
OPEN	CTTC: Chapter Programs		
Dick Cawley	CTTC: Refrigeration	903 566-3957	dickcawley@suddenlink.net
Scott Randall	Student Activities	903-510-7557	Scott.Randall@carrier.utc.com
Gene Branum	Student Activities: Tyler JC Advisor	903 510-2232	gbra@tjc.edu
Jeff Mountain	Student Activities: UT-Tyler Advisor	903-565-5588	Jeffrey_Mountain@uttyler.edu
Clinton Odom	Membership Promotion	903 509 7292	clinton.odom@trane.com
Leslie Zinger	Webmaster	903 581-3189	leslie.zinger@trane.com

**Region VIII Director and Regional Chair**

Ken Fulk	DRC	972 788-4222	KFulk@rwb.net
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