ROCKY MOUNTAIN RMGA GAS ASSOCIATION

PIPELINE

FUEL FOR YOUR BUSINESS | JUL/AUG 2018

THE NEWSLETTER OF UTAH'S HVACR INDUSTRY | 153 SOUTH 900 EAST, #3 • SLC, UT 84102 • WWW.UTRMGA.ORG

2018 RMGA Compensation Survey

RMGA HAS DEVELOPED a compensation survey (see insert) to assist members in better understanding current compensation trends in Utah, including average hourly wages, employee benefits and other customer billing information.

Please answer the survey questions and return your responses to RMGA by July 6. All responses will remain anonymous and held in strict confidence, with only aggregate numbers reported to our members. ■

RMGA Apprenticeship Program Under Construction

RMGA IS DEVELOPING a registered Apprenticeship Program for member contractors. Hiring apprentices builds loyalty and professionalism, and increases tech skills, saving time and money from re-works, and reduces costly re-hires.

RMGA is working with Utah technical colleges with HVAC programs to develop a common Apprenticeship Curriculum. RMGA will handle all document processing needed to hire apprentices, and by working with Utah technical colleges, custom fit funds can be accessed to help pay for training!

Also under consideration is a boot camp style immersive HVAC program for members who want new hires up to speed and ready to work independently in a few short weeks.

Join us at the next RMGA Apprenticeship Committee meeting from 9-11 AM on Wednesday, July 11 prior to the 11:00 AM RMGA Board Meeting at Johnstone Supply (2940 S 300 W). ■

Riveting Refrigerant Training

ON A HOT SUMMER EVENING (June 2) in the air-conditioned Draper RSD, 18 HVACR owners and technicians enjoyed chicken marsala for dinner and delicious lemon bars for dessert, prior to learning about the changing world of refrigerants. Raffle prizes capped the evening's events.

RMGA Fall Tech Training is scheduled for 5-7 PM, Wednesday, September 5. Save the date! ■

MESSAGE FROM THE PRESIDENT

Ryan Rentmeister
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RYAN RENTMEISTER

Dear RMGA Members & Friends,

I had an experience this week that has me questioning the direction some are going. I was at a meeting put on by a local distributor and a utility company to talk about rebates. They explained the simple process to participate. One simple page with very little info. One of the comments that was made was the elimination of the requirement for an AHRI certification or a matched system. They had too many complaints about it being too hard to meet this requirement. Really. When creating a system, a hanging tag of 14 SEER can really have an efficiency rating of 13 to over 16. What a huge difference in operating cost and performance. Also, this can be a huge difference in capacities.

Several years ago, we wanted to test out two equipment manufacturer's top end equipment. In one home we had the distributor select the system. Who else would know the product line better? Who else would want to make a premium system. We removed a 20-year-old 13 SEER 2 speed AC, 96% variable speed furnace and installed a hang tag 15 SEER 2 speed AC, mod furnace, zone system, etc. A great looking system. After it was installed we discovered it was not a 15 plus seer unit. It was a 13 SEER because of the coil and furnace that was chosen. So much for better energy savings and better performance.

Why do I bring these things up? Two thoughts. First, if you have not been trained on the proper equipment selection (Manual S) please get into Brent's class. It is critical to have these skills. Second, there are those around us and among us that think we need to "dumb it down" and reduce some of the requirements for us. I say not. We need to continue to raise the bar. What we do is science. It is critical to be accurate. Some may feel they need to cut things out to get work. This is not true. Be professional, honest and do your very best and you will rise above the low-price guys. Always be training. Always advance your knowledge. We will never know all we need to about this industry. Don't ever stop learning. Don't settle for mediocrity.

Some may want to send hate mail. ryan@rentmeister.com

Have a great summer,

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RMGA EDUCATION CLASSES

New Pre-test Evaluates Technician Readiness

CERTIFICATION CLASSES Now Three Full Days of Training

Beginning this July, RMGA certification classes are now three full days of instruction, with all testing administered at Technical College testing centers across Utah. RMGA test vouchers will be issued to each student to cover the cost of their first test attempt and testing fee.

Also in July, RMGA will post an online certification pre-test to help determine a technician's readiness and likelihood of passing the RMGA Certification Exam. Go to www.utrmga.org.

GAS CERTIFICATION CLASSES

July classes SOLD OUT

Salt Lake City

Friday, September 14,
Saturday, September 15 &
Saturday, September 22
8 am - 5 pm

All classes will be held at:
Dominion Energy
CTC Training Room
1000 West 100 South, SLC, UT

$395 per person

Price includes books shipped, 10 on-line videos, testing fee and 3 lunches

Salt Lake City

Friday, November 2,
Saturday, November 3 &
Saturday, November 10
8 am - 5 pm

All classes will be held at:
Dominion Energy
CTC Training Room
1000 West 100 South, SLC, UT

$395 per person

Price includes books shipped, 10 on-line videos, testing fee and 3 lunches

Call 801-521-8340 to register for all classes

Partial funding of RMGA training programs have been provided by the Division of Occupational & Professional Licensing from the 1% surcharge funds on all building permits.

"This is why we can't have nice things."

Time out for a little humor from

THE NEW YORKER

"And Perkins will be there if you drop the ball."

MECHANICAL CODE DISCUSSION

Infiltration and Ventilation Air—Impact on Load Calculation


BRENT URSENBACH

BRENT URSENBACH

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THIS CODE DISCUSSION IS THE fifth in a series on the code requirements to design a residential HVAC system in accordance with ACCA Manuals J, D, and S.

The focus this issue is the importance to accurately identify the additional load placed on an HVAC system by infiltration and ventilation air. Let's start by re-visiting a couple of definitions in past discussions.

Definitions:

INFILTRATION.
Uncontrolled inward air leakage to conditioned spaces through unintentional openings in ceilings, floors and walls from unconditioned spaces or the outdoors caused by pressure differences across these openings resulting from wind, the stack effect created by temperature differences between indoors and outdoors, and imbalances between supply and exhaust airflow rates.

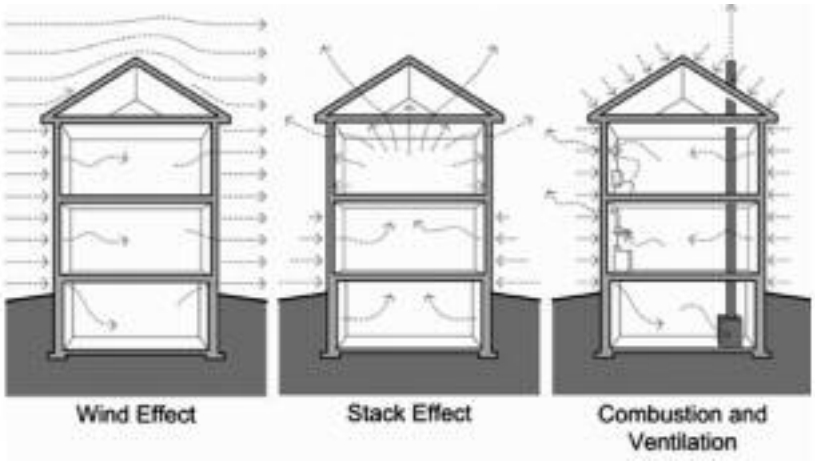
VENTILATION.
The natural or mechanical process of supplying conditioned or unconditioned air to, or removing such air from, any space.

VENTILATION AIR.
That portion of supply air that comes from the outside (outdoors), plus any recirculated air that has been treated to maintain the desired quality of air within a designated space.

The key concept in this discussion is the load calculation for every building includes either the *unintentional* or *intentional* introduction of outside air into the building envelope. We heat and cool our buildings for comfort, simply because we want our homes warmer than outside in the winter, and cooler in the summer.

As the cold or hot air enters our building through infiltration or ventilation, additional heating and cooling loads are added to the total loads. These loads increase with outside temperature extremes, just as loads due to conduction through building components increase with temperature extremes.

It's relatively easy to identify the quantity or CFM of air introduced through ventilation, as we can calculate and measure the volume introduced by an outside air intake. It's a little harder to accurately identify the volume of air leaking into and out of a building.



Default Air Change Values

Manual J includes Tables 5A & 5B, which help us make an educated guess for the infiltration rate in a home. The Tables includes a description for a Tight, Average and Loose home, based on air sealing practices followed during the construction process and subsequent improvements.

For example, a **Tight** home has all

seams, joints, penetrations sealed by meticulous craftsmanship, includes tight fitting backdraft dampers on all exhaust, includes only direct vent gas appliance, and sealed fireplaces.

An **Average** home includes homes where reasonable efforts have been made to seal the building envelope, with typical inexpensive backdraft dampers and combustion appliances draw air from inside the home.

A **Loose** home is the opposite, with no effort to seal, and combustion appliances and fireplaces open to the interior of the home.

Table 5A & 5B, recognizing there are many homes which fall somewhere in between the three described conditions, includes **Semi-tight,** where conditions are approximately between *Tight* and *Average,* and **Semi-Loose,** where conditions are approximately between *Average* and *Loose.* The typical home built today is *Semi-tight;* however, *Tight* homes are occasionally built.

"The typical home built today is *Semi-tight*"

Once we've identified the default construction ID for a home, the Table provides an *Air Changes per Hour (ACH)* value, for heating and cooling, and for homes of various volumes.

This default method is only one of several methods which may be used to determine the ACH due to infiltration. An analysis of individual components described in Tables 5C & 5D requires additional time and effort, for possibly improved accuracy. Finally, for multiple homes built by the same construction teams, blower door testing may be used verify and fine tune the ACH for homes in a project.

Once we've identified the volume of air introduced into a home by infiltration and ventilation, these values are inputted into the Manual J process for the calculation of the required BTU's per hour due to infiltration and ventilation.

Please consider taking a little time to open your Manual J, and review this process, insuring your calculations accurately reflect the impact of outside air on the total building load. Thanks again for your input. —Brent ■

Meet and Get to Know: LES JOHNSON

LES JOHNSON

Q. What is your position within your company?

A. Estimator/Comfort Consultant.

Q. When you were a child, what did you want to be when you grew up?

A. Auto Mechanic.

Q. Why did you become an HVACR contractor?

A. My father was in the Trade.

Q. What was your first or most unusual HVACR experience?

A. Climbing through huge duct at BYU to repair loose duct liner. I had no idea ductwork was that big anywhere!

Q. What are your favorite aspects of your job?

A. I like problem solving residential comfort issues. I also like value engineering commercial projects and seeing the results of my efforts.

Q. As a new RMGA Board Member, what would you like to accomplish?

A. I would like to see the upcoming tradesmen/tradeswomen continue on with the pride and accomplishment the older generation seems to have. I see a lot of questionable workmanship out there and I hope proper training and proper credentials and state requirements of the people installing systems will keep the quality up. Ultimately the end user is the one who suffers. How would they feel if it was the home of a family member they did a sub-par job on?

Q. If you weren't an HVACR contractor, who do you think you would be?

A. Probably a car salesman, LOL.

Q. What is a motto that you live by?

A. If you're not 10 minutes early you're late.

Q. If you could travel anywhere in the world, where would you go?

A. I would like to see Ireland. (And maybe play one round of golf while I was visiting).

Q. What is your favorite dessert?

A. Anything with Peanut Butter.

Q. If you won a 5 million dollar lottery, what would you do first?

A. I would buy all 3 of my girls new homes for a bit of a head start in life. I would set up a college fund for my grandkids and then I would donate some to the Veterans and homeless. I do think I would continue to work as long as I could.

Q. What is your favorite movie?

A. I don't know that I have just one. I love comedies like Step Brothers, Napoleon Dynamite and Dumb & Dumber.

Q. If you could invite any three people to dinner (dead or alive), whom would you invite and why?

A. For sure my deceased mother just to talk one more time. Elon Musk to share some fresh ideas I have, and Ted Nugent.

Q. People would be surprised to know…

A. I still listen to 80s hair band/rock music in my headphones when doing yard work.

Les Johnson is with Triple T Heating, Cooling & Plumbing and can be reached by office phone: 801-798-7711 or cell: 801-420-1353, or by email: ljohnson@tttcool.com.

Risk Management Corner

The Temperature is Rising

THIS IS THE TIME OF YEAR we look forward to warmer temperatures, and the sun responds with heating up our day. Eventually it gets hot and humid, and that is when it can become dangerous. In 2016 alone, 39 workers died and 3,310 were injured from environmental heat exposure.[1]

The dangers of heat

Your body is designed to cool itself and normally does a good job. But, if you're exposed to extreme heat for too long, sweat a lot and don't rehydrate, your cooling system may fail. If that happens, watch out! A heat-related illness can start slowly—you may not even realize it's happening—but it can quickly get worse if it's not treated.

Heat-related illnesses and warning signs

- Basically, **heat cramps** are Charley horses and can be an early warning sign of heat-related illness.
- **Heat exhaustion** symptoms include increased body temperature (as high as 104°F) and cold, clammy skin. Untreated, it can lead to heatstroke.
- **Heatstroke** is life-threatening and can cause brain damage, organ failure, or even death. Body temperature goes over 104°F. The victim may stop sweating even though his/her skin may be hot, and could also become confused or irritable. Medical attention is critical.

Major warning signs of heat-related illness include:

- Muscle cramps
- Nausea or vomiting
- Weakness
- Headache
- Dizziness/feeling light-headed
- Confusion

Avoiding the dangers of too much heat

Not everyone reacts to too much heat exposure the same way nor experiences all the classic symptoms of heat-related illness. If your employees ever work in hot conditions, they should know the related risks and preventive measures so they can protect themselves.

Practicing basic precautions can help make working in hot weather more bearable and less dangerous.

- Pace yourself when working in the heat—don't overdo it.
- Hydrate with plenty of water or sports drinks, but no alcohol or caffeine.
- Dress appropriately—light-colored, lightweight, loose fitting clothing, including a wide-brimmed hat, if possible.
- Stay out of the midday sun whenever possible. Do the harder work during the cooler parts of the day. Take breaks in the shade.
- Wear sunscreen. A sunburn makes it harder for your body to cool itself.
- Certain medical conditions or medications can make you more vulnerable to over-heating.
- Keep an eye on co-workers. If someone is showing any of the symptoms of heat illness, notify your supervisor immediately.

For more information on environmental heat exposure, contact your local Federated representative.

[1] U.S. Department of Labor, Bureau of Labor Statistics.

More articles from this Federated Insurance workplace safety series can be found at:

https://www.federatedinsurance.com/ws/fi/InsuranceResources/index.htm

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