

Volume 19, Issue 2

## 2024

**Meeting Dates** 

2024 February 7th

Board Meeting Only

## March 14th

Board & General Mtg. Topic: Risk Managing Your Fleet Speaker: Bobby Oehling Federated Insurance Meeting Place: Carmody's

## April 11th

Board & General Mtg. Topic: A2L Refrigerants Speaker: Standard Air Meeting Place: TBD

## May 9th

Board Mtg. & 2024 Apprentice Graduation Topic & Speaker: TBD Meeting Place: TBD



The mission of the Air Conditioning Contractors of Western PA is to assist its members in managing their companies more efficiently, therefore becoming more profitable, together with increasing their exposure and credibility within the community.

#### Driving for the Weather: Be Smart, Be Prepared, Be Safe . . . Federated Insurance

While it's true that a driver's skills, training, and experience are key to safety on the road, there's plenty that can be done before a vehicle leaves the garage to help a driver stay safe between Point A and Point B. Make sure all your vehicles are prepared — inside and out — for their intended use before you send employees out into traffic.

#### In the Cab

**Ditch the distractions** — Distracted driving is a leading cause of accidents, injuries, and deaths on the road. Train your drivers to refrain from using their mobile devices while operating a vehicle and avoid using communication devices (even hands-free ones) unless absolutely necessary.

**Keep it clean** — It's common knowledge that a clean workspace is a safe and efficient workspace. Make sure to remove clutter that can draw a driver's attention away from the road or impede the use of pedals. Make sure windows are clean, and mirrors and back-up cameras are clear.

**Prepare for an emergency** — Even a vehicle with an impeccable service record can break down, so keep an emergency roadside kit in each vehicle. Equipment recommendations include a cell phone and charger, a first-aid kit, flashlight, flares or reflectors, jumper cables, water, and blankets.

#### Under the Hood

**Get a grip** — When the rubber meets the road, your vehicles' tires can mean the difference between disaster and safe arrival. Make sure the tire tread, inflation level, and overall tire condition are safe for use. Swap the tires with new ones if they're getting old or worn. If you do business in a cold-weather state, make sure your vehicles are equipped with the proper tires for the weather.

**Practice constant care** — Regular maintenance will help ensure that your vehicles are in proper working order. Oil changes, transmission service, and brake service are just a few of the recommended procedures. Consult a trusted technician for frequency and extent of service.

Watch for recalls — Manufacturers often send out notices when a safety recall is ordered, but taking an active role in safety is always the best policy. The National Highway Traffic Safety Administration offers a vehicle identification number look-up tool so you can check if your vehicles are under any safety recalls. Simply visit <u>www.nhtsa.gov/recalls</u> and enter your vehicles' VINs.

An ounce of prevention is worth a pound of cure. So, before you or your employees head out, make sure all your vehicles are ready for what the road has in store.

## HAPPY VALENTINES DAY!!

#### Membership Benefits...

#### Air Conditioning of Western PA

will continue to be your local industry partner, as we have been since 1950.

#### Annual Membership Brings You the Following Benefits:

- Networking events
- Discounts on seminar
- Current info from local suppliers 
  ACCWPA Apprenticeship School
- Legislative efforts
- Local website
- Technical training courses
- Apprenticeship program State recognized
- Monthly newsletter
- Information of industry news changes within the industry

- · Insurance for member's company discount
- Code enforcement updates Local lobbying
- Voice for the local contractors
- Golf Outing
- · Education opportunities for your technicians office staff
- · Advocacy agenda promote contractor interest.
- Labor and HR legal advice before utilities
- Helping members to stay ahead of the curve
- 8 Monthly informative meetings





#### Upcoming Meetings!

## 2024

#### Meetings Schedule!

February 7th **Board Meeting Only** 

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Federated Insurance Meeting Place: Carmody's

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Work Hard in Silence, Let Success make the Noise!



#### Four Key Questions about ZONE HVAC By Grainger Editorial Staff 9/15/23

Many commercial facilities serve a variety of purposes. Different areas of the building are created for different functions, including machine shops, office and meeting spaces, storage areas, dining rooms and data centers. Each of these areas has different recommendations for optimal temperature, humidity and ventilation levels to ensure occupant comfort, safety and productivity. With so many competing uses, how can building engineers ensure one HVAC system can deliver the appropriate settings for each area? One solution is a zoned HVAC system.

#### 1. What Is Zoned HVAC?

A zoned HVAC system divides your facility into zones that can be heated, ventilated, and cooled at different rates. Instead of keeping the entire building at one temperature, a zoned system lets occupants in different areas set their part of the building to a temperature that is comfortable for them.

Trying to keep a large building at a single temperature setting is a recipe for inefficiency. Not only will unoccupied spaces be heated and cooled, but some workers will likely end up uncomfortable. For example, a typical commercial facility might have an office area, a machine shop, and some warehouse space. The office workers will likely prefer a room temperature working environment, while machinery operators may want to turn the thermostat down a few degrees.

Compromising on a single temperature would leave everyone too hot or too cold. You might even see wasteful behavior, like cracking open the shop's windows in wintertime, or space heaters running beneath office workers' desks in the summer.

Equipment can also be impacted by the temperature. Some work areas might need to be kept cooler for the operation of machinery or computer servers.

HVAC zones let occupants set their working environment to a temperature that suits them. The system can also allow the temperature in unoccupied spaces like storage areas to fluctuate with the weather, saving on heating and cooling costs.

When linked to <u>building automation controls</u>, zoned HVAC can also switch off heating and cooling at different times throughout the building. For example, if your facility's office empties out at 5 p.m. but the machine shop operates a second shift, a zoned HVAC system can idle the office area while continuing to cool the workshop. Within the office space, intermittently used areas like conference rooms can be operated as their own zone, with heating and cooling automatically switched on by occupancy sensors.

#### 2. How Much Energy Can HVAC Zones Save?

The U.S. Energy Information Administration <u>estimates</u> that heating and cooling accounts for more than 40% of energy consumption in commercial buildings, so investments in efficiency can pay big dividends. The potential savings from installing a zoned HVAC system will depend on your climate and the equipment being upgraded or replaced.

A study by the <u>Pacific Northwest National Laboratory</u> found that the changes made possible by zoned HVAC, such as minimizing airflow volume and turning off heating and cooling in unoccupied spaces, can reduce a building's total energy consumption by about 13%.

When installing zoned HVAC means upgrading to more efficient equipment, the savings can be greater. A <u>Department of Energy study</u> found HVAC energy savings could exceed 60% for an office building that replaces a single-zone gas heating system with a zoned system powered by a high-efficiency heat pump. And a <u>Pennsylvania State University study</u> found that retrofitting an office building with zoned HVAC controlled by occupancy sensors resulted in total energy savings between 36 and 43% during the cooling season.

**HAPPY VALENTINES DAY!** 

Misc. Info . . . .

Every Job is a

SELF-PORTRAIT Of the Person who does it. Autograph your work with Excellence!

AUTHOR UNKNOWN



## ACCWPA Newsletter and all notices:

If you like to get our ACCWPA Newsletter send your email address to: pforker@accwpa.org



#### Four Key Questions about ZONE HVAC

- Grainger Editorial Staff 9/15/23

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#### 3. How Much Does Zoned HVAC Cost?

The cost of converting a building to zoned HVAC varies widely, depending on which components will need to be upgraded. Some buildings may require extensive ductwork and entirely new air handlers. Other buildings may be able to retrofit much of their existing infrastructure.

Energy Star found the cost of upgrading a ducted commercial HVAC system could range from \$0.67 to \$7.10 per square foot, and <u>a study</u> by the American Council for an Energy-Efficient Economy found that upgrading a ductless HVAC system cost between \$0.60 to \$6 per square foot. These studies found a similarly varied payback period on the investment, ranging from a matter of months to over seven years.

#### 4. How Does Zoned HVAC Work?

For the building's occupants, operating a zoned HVAC system can be as simple as adjusting the nearest <u>thermostat</u>. But behind the scenes, zoned HVAC relies on sophisticated building management software and versatile air handling machinery.

To keep zones at different temperatures, the building's HVAC system needs to be able to selectively deliver heating and cooling to different areas. This can be achieved in two ways.

Variable Air Volume (VAV): A VAV system controls the indoor temperature by circulating air through <u>ductwork</u>. Inside the ducts, a network of <u>automatic dampers</u> open and close to direct heating, cooling, and ventilation to each zone as needed.

In a VAV system, the hot or cold air is typically supplied by a single large air handler, often located on the building's rooftop. The air handler must have a variable speed <u>blower fan</u> to deliver only as much air as the system requires. This system has the advantage of only requiring a single rooftop compressor, but it requires installing and wiring a number of dampers in the building's air ducts.

Variable Refrigerant Flow (VRF): Another method of creating HVAC zones is to selectively circulate <u>refrigerant</u>—rather than air—through the building. Instead of forcing air through ductwork, a VRF system has a variable-speed compressor that pumps refrigerant through <u>copper piping</u> to serve fan coil units throughout the building. As the refrigerant flows through the fan coil, it evaporates and absorbs heat from the air, and a fan blows the chilled air out into the room. In the winter, the refrigerant's flow is reversed, and the system operates as a heat pump.

Instead of using dampers to adjust airflow inside ducts, a VRF system uses valves to control the flow of coolant to each zone's fan coils. A thermostat also controls the fans that circulate air across the coils. The VRF system's compressor, located outside the building, must have a variable speed pump to send only as much refrigerant through the building as demanded.

In addition to being highly efficient, a VRF system has the advantage of using relatively narrow copper pipes, rather than bulky air ducts. This can make installation considerably easier in a building that lacks a drop ceiling or crawlspace.

A VRF system can also be set up for high-efficiency heat recovery, using refrigerant to move excess heat from one area of the building to provide heating elsewhere. Heat recovery can be especially valuable for facilities with a persistently warm zone. For example, a network server room may generate so much heat that it requires air conditioning year-round. A VRF system can capture the server room's heat in the winter and circulate it to other areas of the building, using it to heat other zones.

The primary disadvantage of a VRF system is that it does not provide ventilation, since refrigerant is circulated through the building instead of air. This means a VRF system will often be paired with a separate <u>ventilation system</u> that introduces fresh air to the room through ductwork.

A multi-split HVAC system is similar to VRF, circulating refrigerant from an outside condenser to indoor fan coils. Split systems are typically found in smaller buildings, since only a handful of fan coils can be served by a single condenser.

Regardless of which type of HVAC your building uses, a zoned system will rely on building automation software. A zoned system requires coordination to match the air handler or compressor's output to the building's demand. Building automation software can also enable energy-saving technologies like occupancy sensors, timed thermostat adjustments, and even lowering the blinds on sunny afternoons.

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ACCWPA

Corner

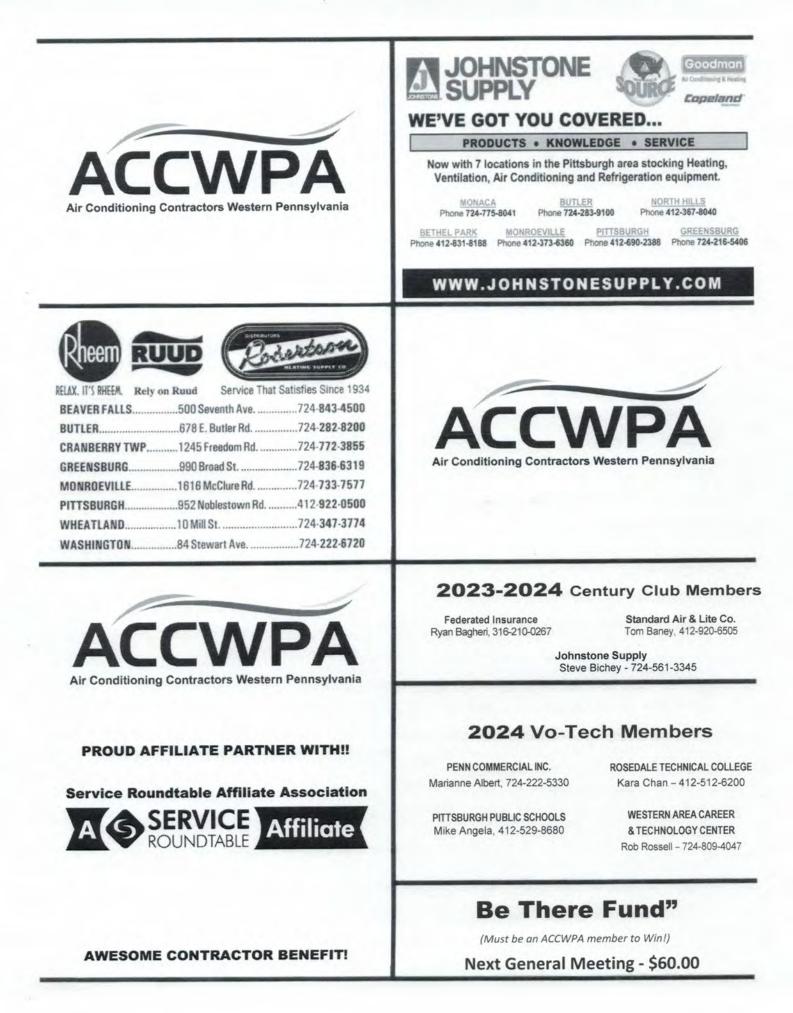
Integrity is the essence of everything successful.

## PEACE, LOVE and JOY thru out 2024!

SmartWords One Kind Word can change someone's entire day!

#### Inspiration







## Not a Contractor or Associate member?

## We'd love to serve you, too.

For additional information visit www.accwpa.org or call 724-687-7860 Email: pforker@accwpa.org

#### Additional reasons for membership are:

- Company membership applies to all employees of your firm.
- NEW!! Contractors Free Associate Membership in Service RoundTable!!
- Networking!!!
- Monthly meetings with informative presentations that benefit both the Contractor and Supplier.
- Relevant technical training and educational classes.
- 4-year Apprenticeship School with curriculum that is focused only on the HVAC industry!
- Monthly newsletters and email communications filled with industry information and updates.
- Insurance for member's company discount.
- Social Outings that everyone can participate
- And much more to come!



Join today!

ACCWPA is the Professional Alliance designed exclusively for today's HVAC/R Contractor!

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Happy Valentine's Day!

## **ACCWPA MISSION STATEMENT**

Air Conditioning Contractors of Western Pennsylvania (ACCWPA) is a non-profit trade association of service to the independent heating, ventilation, air conditioning, and refrigeration (HVACR) contractors.

ACCWPA's objectives have been to promote and protect the interest and welfare of the HVACR industry, its members, and the public which it serves.

In doing so, its members maintain the highest ethical standards of selling, advertising, pricing, installation, and service guided by the principles of honesty and integrity. While competing in our free enterprise system, the members of ACCWPA share certain goals and aspirations designed to improve the quality of service provided to the American people.





# February 14<sup>th</sup>!!!

#### MARK YOUR CALENDARS FOR ACCWPA'S OUTING OF 2024!!

**Quicksilver Golf Outing** 

August 20, 2024

#### **ACCWPA Trap Shoot**

October 8, 2024



## ACCWPA is the Professional Alliance designed exclusively for today's HVAC/R Contractor!

## Membership Advantages:

Networking with other contractors. This source of information is invaluable in handling problems within your own company. ACCWPA members help fellow members to be successful!



ACCWPA distributes ACCWPA Newsletters monthly to members and selected non-members, so that all those in the HVAC/R industry can keep informed of issues regarding our trade, and Chapter activities. We hope the non-members will see this newsletter as an example of the quality services that ACCWPA provide. Contributions or suggestions can be emailed to pforker@accwpa.org

#### ACCWPA is proud to be a Service Roundtable Affiliate Assocate.

DDECIDENT.

#### **ACCWPA Upcoming Events**

February 7<sup>th</sup> Board Meeting Only

#### March 14th

Board & General Mtg. Topic: Risk Managing Your Fleet Speaker: Bobby Oehling, Fed. Ins. Meeting Place: Carmody's

#### April 11th

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May 9<sup>th</sup> Board Meeting and 2024 Apprentice Graduation



## **2024 Officers and Directors**

Affiliate

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ACCWPA

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