



## WISCONSIN COMMERCIAL BUILDING CODE

*Benjamin Lane*

Allyse Brost and I had the pleasure of attending the Wisconsin Commercial Building Code Refresher course put on by the Department of Safety & Professional Services (formerly the Department of Commerce), in conjunction with the University of Wisconsin-Madison, at the end of February. The state puts these programs on annually at this time of the year for building design and construction professionals as a refresher on current construction codes and standards. This is also a great opportunity to hear first-hand from the code authority and plan examiners about specific areas and items they are looking for when reviewing our plans and inspecting our projects.



We found this to be especially important this year with Wisconsin's adoption of the 2009 International Codes back in September of 2011. We were pleased to see several of your familiar faces in attendance with us and would definitely like to encourage any and all of you who perform commercial work to consider attending

in the future. I will do my best to inform you in advance when these programs become available so all of you who may be interested will have an opportunity to attend.

As is typically the case when code changes have taken place in the past, we have and will continue to, experience growing pains as we learn and experience more. In an effort to minimize this as much as possible I've highlighted some of the major changes that I've come across. I'm including code section references as well so that you might have the ability look these up and reference them on your own. Please don't hesitate to call if you have any questions.

- The Department of Commerce has been renamed the Department of Safety & Professional Services (DPS) and all Comm references in the code have become SPS references
- All code numbers have been given a 300 series prefix. For example, Comm 64.0403 has now become SPS 364.0403
- The minimum R-values of Duct and Pipe insulation have increased per IECC 503.2.7 & 8
- Set back controls are required for residential occupancies with some exceptions per IECC 403.1.1
- Operation of snow melting controls defined in IECC 503.2.3.5
- Heating systems outside of the building to be radiant only and have controls as per IECC 503.2.11
- Appliances located at grade level are to be placed on concrete pads or other materials not less than 3" in height or be suspended not less than 6" above grade per IMC 304.10
- Outside air for ventilation is to be provided at a rate of 5 – 60 cfm/person based on occupancy or 7.5 cfm/person per IMC 403
- Enclosed parking garages must be provided with 0.5 cfm/s.f. of exhaust continuously or 0.75 cfm/s.f. intermittently per IMC 404/SPS 364.0404
- Underground ducts are to be pitched at 1/8" per foot per IMC 603.8.1
- Outdoor air and exhaust air ducts may be required to have motorized dampers unless an exception is met per IECC 502.4.5
- Demand controlled ventilation is required for some spaces depending on size and occupant load of space per IECC 503.2.5.1.

## GETTING TO KNOW YOU

*Donna Inman*

Let me introduce you to Ben Lane who is the Engineering Department Manager here at Monroe Equipment. Ben celebrated his first anniversary at Monroe Equipment in March. Actually, that was his second 1<sup>st</sup> anniversary here! Ben was first employed here in 2001 after graduating from MATC as an associate in Applied Science in Air Conditioning & Refrigeration Technology.

Ben is an experienced Mechanical Designer, a registered Designer of Engineering Systems and Refrigerant Handling Technician in the state of Wisconsin as well as a LEED AP as recognized by the USGBC, US Green Building Council. He has extensive experience in the design of heating, ventilating, air conditioning and refrigeration systems for commercial, multi-family commercial as well as industrial new construction projects.

Because of his great talents and abilities, Ben was rehired a year ago. Matt Schneider says, "We were extremely happy when given the opportunity to rehire Ben from a consulting engineer. He brings a youthful energy, with a sales focus, to his position. Ben's time spent with a consulting engineer truly broadened his knowledge of design and allowed him to gain valuable experience from a different perspective of our industry that all blends perfectly to help our valuable customers."

Ben is responsible for all commercial project state approved drawing creations and submittals as well as assuring compliance on these commercial projects. He is also the primary source for commercial code compliancy questions and residential RES-Check calculations. If there would be a commercial quote overflow, Ben would assist with those projects also.

Ben will have another first anniversary this year; he was married last year to his lovely wife, Valerie. Ben spends many hours a day here so time with family is very precious to him. If weather permits, Ben and Val like outdoor activities like camping and hiking; otherwise you might find them at the movies or traveling. Ben can relax when there is a professional football or baseball game to watch. Otherwise he likes home improvement projects, landscaping and gardening.



*Benjamin Lane, Engineering Department Manager*

Ben would like you to know that he is passionate about "green" construction practices. He really enjoys designing hydronic piping systems and the complexity that comes along with that type of design.

I second Matt's feelings about being extremely happy that we could rehire Ben. He is a wonderful person – very kind and caring to his fellow co-workers, has a great work ethic, is patient and understanding and often needs just a few more hours in the day to complete all he wants to get done!

## WHAT'S IN YOUR TANK

Ken Jung

**H**opefully it is a “healthy looking anode rod.”

We are talking DHW tanks here. As the hydronics industry has revolved and come back full strength over the past years, a few changes in application and system design have also followed suit. One of the biggest accessories now tied to a great majority of hydronic heating systems is that of the domestic hot water tank (DHW). It is also one of the most neglected or overlooked items as well.

Depending on the manufacturer and the type of material that the tank is constructed of, the tank may or may not have an anode rod in it. But assuming that it does, what is an anode rod and what purpose does the anode rod serve?

An anode rod in its simplest terms is the “sacrificial element” inside of the water tank. It’s purpose is to act like a miniature lightning rod. As a lightning rod dissipates the electrical difference between electrons in the air to earth ground, an anode rod acts to attract ions and any electrical current that is present in the water. It’s sole purpose is to deteriorate faster than any other part inside of the DHW tank that is subjected to the same electrical current rather than the ions attacking the materials of the tank itself.

From the moment the DHW tank is installed the water starts to act on the inside of the tank and cause deterioration from a process called electrolysis. Any cracks in the internal glass lining or exposed metal inside the tank become an immediate corrosion target.

Most anode rods are made of magnesium which allows the rod to deteriorate much faster than the steel or glass lined tank. The higher the level of electrical conductivity of the water, the faster the anode rod will corrode. Once the anode rod corrodes and disappears, the tank has lost its protection and electrolysis starts to act on and corrode the other parts of the tank.

Most manufacturers require annual or bi-yearly inspection of the anode rod in order to maintain the warranty status of the tank. If the anode rod is not maintained, warranty claims for “leaking tanks” have been denied.

Although not the only cause, smelly or sulfur water smell can also be caused by an anode rod. It could be that the

anode rod is in poor condition or that the minerals in the water are reacting with the material that the anode rod is made up of. In some cases, an aluminum or zinc anode rod may be available to help to cure this problem.

Consider adding a DHW tank check to your boiler maintenance agreements. The additional revenue you can generate along with the value added customer service will be easier than replacing a DHW tank that has failed due to lack of maintenance or explaining why the tank will not be covered by warranty.



*Normal Anode Rod*



*Deteriorated Anode Rod*



*Deteriorated Anode Rod*

## MAKING ROOM FOR THE "NEW" THIS FALL

*Allen Ausprung*

**B**raeburn is in the process of updating their line of thermostats. The new thermostats will continue to have the bright blue background, with all the same easy to use features. The main difference will be the larger display area.

The new models will be available by the end of summer. Until then, please take advantage of our sale on the current Braeburn thermostat models. We have attached a copy of our Braeburn sales flier to this email. **Hurry, our sale is only while supplies last!**



*Braeburn DELUXE Series 6400*

## MONROE EQUIPMENT AWARDED

**A**llied Air Enterprise presented Monroe Equipment, Inc. with an award for being the single largest user of *HVAC Learning Solutions* in the country. Matt Kobleska and Matt Schneider received the award on Monroe's behalf.

The Monroe Equipment Team uses *HVAC Learning Solutions* and we practice what we preach. Exclusive Armstrong Air dealers gain access which is worth its weight in gold.



*Matt Kobleska and Matt Schneider*

## WARRANTY REMINDER

Sandy Burns

I've noticed that some units that have the 10-year labor coverage added have not been registered online for the 10-year parts warranty through Allied Air. Please understand that the labor coverage is just that, labor ONLY and there is no parts coverage attached. See the registration procedures listed below.

### ALLIED AIR

Allied Air offers an extended 10-year parts warranty on any Armstrong Air, AirEase or Concord product installed in a residential, owner occupied application. Registration must be done by the dealer or homeowner at [www.alliedairwarranty.com](http://www.alliedairwarranty.com) within **60 days of installation** to activate coverage.

If you wish to offer your customers additional warranty coverage, Allied Air offers an extended warranty program through Service Net. Call Sandy at Monroe Equipment for more information.

### BUDERUS & BOSCH

The Buderus GB142, GB162 and the Bosch Greenstar boilers include a 5-year parts and labor warranty but it also must be registered online to activate. See the registration procedures below.

Buderus offers an extended 5-year parts and labor warranty for the GB142 & GB162 and Greenstar boilers installed in residential applications. Registration must be done by the dealer or homeowner at [www.buderus.us](http://www.buderus.us) within **90 days of installation** to activate coverage.

If you wish to offer your customers additional warranty coverage, Buderus also offers an extended warranty program through Cornerstone United. For more information, please call 1-800-824-5090.

## Up Coming Events

**APRIL 3&4, 2012**

Professional Selling - Hilton Garden West (Milwaukee)

**APRIL 7, 2012**

*Monroe Equipment Parts CLOSED*

**APRIL 12, 2012**

Armstrong Air Modulating Furnace Training - Monroe Equipment

**APRIL 23-27, 2012**

Air Conditioning Training - Monroe Equipment

**MAY 3, 2012**

Heat Pump Training - Monroe Equipment

**MAY 8, 2012**

EPA Certification - Monroe Equipment

**MAY 10, 2012**

A/C & R410A Review Training - Monroe Equipment

**MAY 17, 2012**

Basic Electric & Meter Usage Training - Monroe Equipment

**MAY 24, 2012**

A/C & R410A Review Training - Monroe Equipment

**MAY 26, 2012**

*Monroe Equipment Parts CLOSED*

**MAY 28, 2012**

*Monroe Equipment CLOSED*

**JUNE 5, 2012**

EPA Certification - Monroe Equipment

**JUNE 7, 2012**

Refrigeration Line Set Sizing - Monroe Equipment

**JUNE 14, 2012**

Heat Pump Training - Monroe Equipment

*The Monroe Igniter is a quarterly publication created exclusively for customers of Monroe Equipment, Inc.*



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