

# Welcome Building Coordinators!

October 16, 2019



# *Welcome Building Coordinators!*

## Agenda:

- Introductions -
- Announcements and Updates:
- Seasonal Switchover from Cooling to Heating - Tom Moore, Senior Maintenance Manager
- FEATURE TOPIC: *Landscape Services – 2019 Review and the Campus Landscape Management Plan* – Scott Gritsch, Associate Director Building & Landscape Services, David Brown – Manager Landscape Services, Mike Rhinehart – Supervisor Landscape Construction, Shawn Fitzpatrick – Supervisor of Landscape Maintenance
- Question & Answer

# *2019 Building Coordinator Meetings*

- ▶ NEXT MEETING: November 20, 2019
- ▶ *10:30 – Noon*
- ▶ Location: UCC 2520D



# Building Cooling/Heating Switchover: What Should I Expect this Fall?

TOM MOORE

SENIOR AREA MANAGER, FACILITIES MANAGEMENT

# *Why Do We Switchover From Cooling to Heating?*

- Freeze Protection for AHU coils
- Some buildings cannot provide heating and cooling at the same time due to age of the systems

# 2-Pipe vs. 4-Pipe Systems

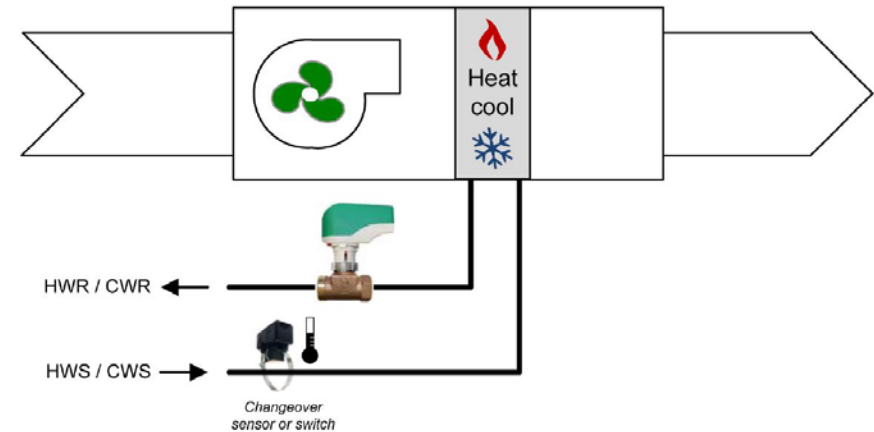
- Two-Pipe System: When heating and cooling share hydronic piping, each fan-coil only has one supply pipe and one return pipe.
- Four-Pipe System: When heating and cooling have separate hydronic piping, fan-coils have two supply pipes and two return pipes.

# 2-Pipe Systems

## Two-Pipe HVAC Systems

A two-pipe system uses half the hydronic piping required by a four-pipe system, which results in a lower cost and a shorter installation time. The system is also more compact, reducing the space requirements of mechanical rooms. Maintenance is also simpler in a two-pipe system, thanks to the reduced number of piping fixtures and valves.

The main limitation of a two-pipe HVAC system is lack of operating flexibility. The hydronic piping circuit that runs through the building connects to either the boiler or the chiller depending on overall needs, and all building areas must operate in the same mode; heating some areas while cooling others is not possible with this system configuration.

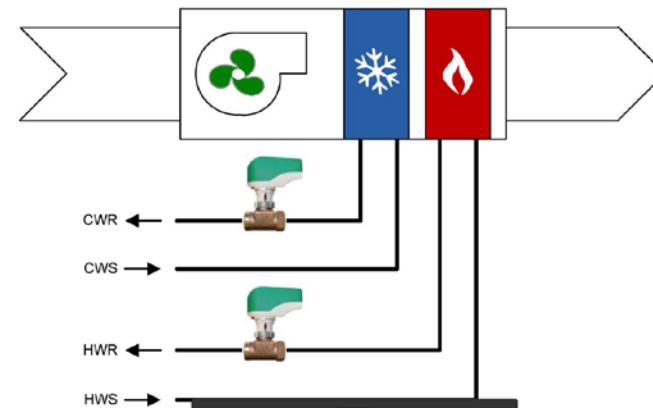


*\*These buildings do not typically have air handling units, but rather fan coils or radiant heat*

# 4-Pipe Systems

## Four-Pipe HVAC System

This system configuration uses twice as much piping as a two-pipe HVAC system, and thus it is more expensive and takes longer to install. In addition, a four-pipe system requires more space to accommodate two hydronic piping circuits that run through the building. The increased number of fixtures, valves and connection points also results in a more demanding system in terms of maintenance.



*\*These buildings typically have air handling units that supply conditioned air to the entire building*



# Examples Of 2-Pipe Buildings At Iowa

- English-Philosophy Building
- Iowa Memorial Union
- Westlawn
- Field House
- Medical Research Facility



# *Chilled Water Coil Draining*

Purpose:

- Offers freeze protection of chilled water coils should we have an event occur

High-Level Procedure:

- Shut coil, drain water
- Flush with glycol to provide freeze protection should any water remain

# *University of Iowa Guidelines*

Historically we have transitioned to heating around mid-October, but are moving to a more data-driven approach based on weather conditions

Principles for Initiating a Switchover from Cooling to Heating:

- Overnight temperatures are consistently below freezing
- Daytime temperature highs are consistently below 75F
- Critical spaces will be given higher priority and evaluated on a case-by-case basis

# *What Should I Expect?*

Until buildings have been transitioned to heating mode,

- Cool temperatures in the morning
- Slightly humid air

Once buildings have been transitioned to heating mode,

- Warmer temperatures and drier air in buildings
- Slightly reduced airflow within a 24 hour window while units are off for the switchover

# *What Can Building Coordinators Do This Fall?*

- Remind occupants to please plan to dress in layers during the Fall season to help with comfort!
- Remind occupants to please be patient during the Fall
- Consider asking that temperature portal requests flow through a single point of contact during the Fall to reduce duplication of effort

**Thank you for your partnership!**

# QUESTIONS?



# *2019 Building Coordinator Meetings*

- ▶ NEXT MEETING: November 20, 2019
- ▶ *10:30 – Noon*
- ▶ Location: UCC 2520D