



Getting The Heating System Ready For The Cold Weather

With the cold winds coming off Lake Erie we all know that winter is coming and we want to be ready for the cold weather.

1. It's not too late to have a boiler-burner service technician come to the facility and complete a cleaning of the burner and calibration of temperature controls including the boiler flue gas temperature and factory settings.

While gas burners are not as difficult to service, oil burner service may be more desirable because oil is a fossil fuel and can be dirtier.

It is still worthwhile to have your boiler serviced along with the thermostatic controls and associated hot water circulator(s). It is also beneficial to service the boiler when it has been operating versus servicing a unit that has been sitting cold and off line during the summer.

1. Before a service technician shows up at your facility consider doing the following:
 - a. Inspect your boiler for water leaks under and/or around the unit, as well as the circulator(s).
 - b. Listen closely for any unusual vibrations or noises from the equipment.
 - c. Make sure this equipment room isn't also being used for a storage room where boxes, papers, etc. may cause obstruction or worse yet a potential fire hazard.
 - d. Check and record the temperature gages and control point readings to share with the technician when he or she arrives to service the equipment.
 - e. When checking readings look closely for error



messages on the unit's display panel and write them down and show the technician with sharing the other readings noted above.

- f. Make sure vent outlets are not obstructed and this task should be routinely checked during the heating season for ice build up and for snow blockage after a snowstorm.
3. Single zone heating e.g., **hot water boiler** serving the building with one room thermostat should be checked as follows:
 - a. With the thermostat in the heating mode turn the thermostat up above the current space temperature reading on the thermostat. The boiler should start and when the hot water temperature reaches its self-contained adjustable control set point e.g., 160F the boiler will start. At that control point this device will signal the hot water circulator to begin delivering hot water to the rooms perimeter

heat.

- b. With the unit in the heating mode the boiler will now automatically start and stop to maintain 160F hot water in the boiler heat changer.
 - c. With 160F readily available the room thermostat will cycle on and off the hot water circulator to maintain the thermostat heat set point.
 - d. If this boiler has multiple hot water circulators then each will have a room thermostat to cycle on and off its associated circulator to maintain the multiple room thermostats.
4. If the boiler doesn't start when a signal is electronically or electrically sent from the thermostat it is important to check the batteries in the thermostat. On some occasions the batteries have sufficient power to allow the thermostat to indicate thermostat temperature readings but does not have sufficient energy to allow the boiler to ignite the burner. Battery operated room thermostats should be replaced every year prior to the start of the heating season to eliminate this potential problem.
 5. If your heating system is **steam** then the room thermostat will most likely initially start the steam boiler (on small units) and continue to call for room heat until steam is produced and sent out to the radiators to heat the space. When the space thermostat is satisfied the boiler will turn off.
 6. If your heating system is a **steam boiler** that is under its own steam pressure controller the boiler will continuously maintain a low steam pressure (2 psig to 12 psig) within the boiler. Out in the occupied space individual room thermostats will control their associated steam valves to automatically open and close to maintain room thermostat set point.

If your heating system is a **single zone warm air system** then a room thermostat shall signal the air-handling unit to start with the oil or gas heat exchanger igniting. Once the air temperature within the air-handling unit reaches its temperature set point (120F to 140F) then the supply air fan will start and distribute warm air to the building.

There are numerous heating system automatic control system scenarios for gas and oil-fired burners, as well as electric heat but the essential thing to consider with the cold weather coming is a need to make sure your heating system is ready to operate and to operate efficiently.

It is important to note that there are several other tasks to be performed when preparing for the heating season including, air filter changes, completion of preventive maintenance work orders for boilers, central air-handling units, terminal units e.g., room fan coil units, and entrance unit heaters to mention a few work orders, combustion air requirements, and check of automatic controls and safety control devices.

So as you get the heating system ready for the cold weather and you need assistance with your building as winter approaches you can call the Diocese of Cleveland Facility Services Corporation where there are individuals who can facilitate this process using their preventive maintenance skills to assist .

For more information :
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