

Heating & Cooling – Coil Fouling

Heating and cooling are responsible for a substantial amount of energy consumption. In fact, heating, ventilation and air conditioning (HVAC) systems in typical commercial buildings are responsible for approximately 40 percent of total energy use. According to the U.S. Energy Information Administration, air conditioning and ventilation account for 15% of the average commercial building's electric bill.

Save Energy & Money: Implement an HVAC Preventative Maintenance Program

Implementing a routine HVAC preventative maintenance program can increase efficiency, save energy, and help preserve equipment life. Studies indicate that effective maintenance can reduce HVAC energy costs by 5 to 40 percent depending on the system or equipment involved.

Evaporator coils and condenser coils are two of more than 100 HVAC system components that need ongoing routine maintenance or energy performance degradation can occur.

The U.S. DOE says that “a dirty condenser coil can increase compressor energy consumption by 30 percent.”

With the HVAC system running in “cool” mode, there are two places where heat exchange occurs: 1) condensing unit coils, and 2) evaporator coils. Unlike the evaporator coil, the condenser coil is exposed to unfiltered outside air.

Dirty coils force compressors to run longer and work harder than required, increasing energy usage and utility costs while decreasing component life.

Clean Coils Make Sense & Save Cents

As part of its ongoing efforts to promote energy-efficient HVAC-system operations, SPU suggests its commercial customers inspect the condenser coils quarterly for fouling. For sound preventive maintenance practices, thoroughly wash the coils when necessary, minimally once each year.

In addition, filters should be changed on a monthly basis, or more often if you are located next to a site where air particles are more evident.

Contact Julie Ambach, your SPU account representative, for specific rebate information for your business

Coil Fouling Defined

Fouling occurs when foreign materials, such as airborne particulates and/or biological growth, act as unintended insulators and inhibit the free air flow through the coils, causing the compressor motor to work harder and resulting in increased energy consumption.





Shakopee Public Utilities
"Lighting the Way—Yesterday, Today and Beyond"

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