01/14/09

Carbon Monoxide

Homeowners with fossil fuel (gas or oil) furnaces and appliances in the home should have the furnace serviced every fall. They should also have carbon monoxide detectors installed. A malfunction of the equipment, or a plugged flue, can send deadly odorless gases into the house. A similarly dangerous condition can occur if an air handler or furnace is located in the garage, and an automobile or generator is left running. Carbon monoxide gases can get sucked into the air stream, going into the house through the smallest leak in the return air or ductwork. Automobiles and generators should never be left running in a garage. For this reason, homes where the air handler is located in the garage should always have C0 detector installed. Combination smoke and carbon monoxide detectors are available at many retail stores and hardware store.

Mercury and the EPA

The typical mercury thermostat contains 3 grams of mercury that can be released in the environment if the thermostat is broken or disposed of improperly. The mercury is used as a component of a mechanical tilt switch, which activates the heating and cooling equipment connected to the thermostat. The U.S. Environmental Protection Agency has estimated that 63 million mercury-containing thermostats are in use within the United States, containing approximately 230 tons of mercury. Proper disposal of thermostats is extremely important in trying to protect our environment. If you have a thermostat replaced make sure the old one is disposed of properly. We owe it to our future generations.

Disposal of Mercury

Mercury is a potent neurotoxin capable of impairing childhood development when pregnant women or young children are exposed to the metallic element. Without proper management, mercury may be released into the environment at the end of a thermostat's useful life during waste handling or disposal. Waste compaction in a garbage truck, at a transfer station, or at a landfill could easily cause breakage of the glass tube in the switch, allowing the mercury to be released into the air. Some states have enacted a thermostat purchase program in order to ensure proper disposal. Unfortunately Florida has not done this yet. If you have a thermostat replaced, make sure it is disposed of properly.

Progress Energy Rate Increase

What can be done to help offset the utility rate increase? There many small things to help with your utility bill. The Department of Energy says you can save *5%*-12% by installing a timer on your hot water heater. Progress Energy has an excellent home energy audit program. An auditor will come to your home and evaluate how you can save money on your electrical usage. Attic insulation, sealing of windows, water heater jackets, window tinting, servicing of your cooling and heating system are some of the things that may be suggested. Progress Energy will even help pay for certain energy saving improvements. By taking advantage of these low cost improvements you may be able to offset the rate increase.

Off set Progress Energy Rate Increase

With utilities going up approximately *25%* there are several things that can help offset this increase. If you have jalousie windows, replacement would be a good idea. Replace your hot water heater with a high efficiency water heater or consider a gas one if natural gas is available. If you have an older cooling and heating system replacing it can easily save *25%* to *50%* of the electricity you were spending. Duct leakage is also a major issue that can make a heating and cooling system inefficient.

Progress Energy has a program to determine how much air might be leaking from your duct work and where. They will pay for part of the duct repair cost. If you have not had this done it is a good idea in order to save some money on your heating and cooling bill.

R-22 Equipment Phase out

The phase out of R-22 refrigerant (Freon) has been coming since the 1987 Montreal Protocol. The first big change is getting ready to take place. On Jan. 1, 2010 air conditioning manufacturers are no longer going to be able to make equipment that uses R-22 refrigerant. If you have an R-22 system, replacing only part of your system is going to be difficult. If the indoor unit of your system was replaced recently it is possible a new R410A condenser may be used, as long as the indoor unit is designed so the TXV valve can be changed, and the evaporator coil is rated for the higher R410A pressures. If not, you will have to replace the entire system if you have a major refrigerant repair. The decision to repair or replace has gotten a little more critical with these new factors.

New Equipment?

Considering new air conditioning equipment has never made more sense than right now. With Progress Energy raising the rates approximately *25%* in order to pay for a future nuclear power plant, we are all in for some changes. We need to make adjustments or pay the price for not being efficient. Most heating and air conditioning manufacturers say the average life of a system is 12 to 15 years. If your equipment is close to this age a new system should be considered because of the payback that can be gained. Saving *25%-50%* over your present heating and cooling cost is only part of the benefit. Better air distribution, humidity control, air filtration, less temperature swing, lower noise level, and the peace of mind of a new system under warranty are other benefits.

Federal Tax Credit is Back

October 3, 2008 President Bush signed into law the “Emergency Economic Stabilization Act of 2008.” This bill extended tax credits for energy efficient home improvements (windows, doors, roofs, insulation, HVAC, and non-solar water heaters). Tax credits for solar energy systems and fuel cells were extended to 2016. New credits for small wind energy systems and plug-in hybrid electric vehicles were added. A wide array of credits for home and commercial buildings are available that contribute to energy efficiency. With a tax incentive available for a new heating and cooling system and Progress Energy raising the rates approximately *25%* it definitely makes good sense to consider a new system if yours is older and inefficient. With rates going the payback time of the investment is shortened. For more information on the tax credits go to www.energystar.gov

What is NATE?

North American Technician Excellence is an independent, third-party non-profit certification organization for heating, ventilation, air conditioning and refrigeration. NATE only tests technicians; the actual training is done by other organizations in preparation for the test. There are 21 installation, service, and senior tests. NATE has many partners throughout the HVAC industry, including industry associations, utilities, and manufacturers. Why is it advisable to hire a company that has NATE certified technicians? Through instruction and a training program, NATE testing validates the technician’s knowledge. The NATE tests are rigorous, multiple-choice, knowledge-based tests. They correspond to repair issues that 80% of technicians have an 80% chance of encountering once a year. A company that has NATE certified employees shows its professionalism and effort to deliver the highest quality service to the customer.