

# OUTER BANKS HEATING & COOLING

"Satisfaction Guaranteed...or Your Money Back!"

## Refrigerant Shortage Looms

Reports by the US E.P.A. and chemical manufacturer DuPont stated the main refrigerant used in residential air conditioning and heat pump systems may be in short supply as soon as 2010.

"The recent Montreal Protocol changes and an updated look at supply-demand scenarios reveal that supplies in 2010 may be much tighter than originally anticipated, including the possibility that virgin R-22 supplies may be short." claims Kevin P. O'Shea, the North American marketing manager for DuPont Refrigerants.

## It's All About The Ozone

The Montreal Protocol that O'Shea references is an international treaty enacted in 1987 and amended several times afterwards. It specifies the phase-out of chlorofluorocarbons (CFCs), which are ozone depleting refrigerants. In 1996, the Montreal Protocol was amended to include hydrochlorofluorocarbons (HCFCs), which are less damaging to the ozone, but still contain chlorine. R-22, the main refrigerant used in residential air conditioning systems, is an HCFC. McDonald said that as of December 31<sup>st</sup>, 2009 residential air conditioning manufacturers will no longer build equipment that uses the current R-22 refrigerant.

The chemical manufacturers will still be able to produce R-22 for servicing existing systems, but the production quantities will be dramatically reduced. After this December, the production will be limited to 25% of the 1996 production levels. In 2015 production will be decreased to 10% of the 1996 production level and in 2020 we will be faced with a 99.5% phase out of production or importation of the R-22 refrigerant.

It was projected that the existing stock of R-22, combined with limited production would be sufficient for servicing existing systems. This assumed that contractors were diligent about recovering, reclaiming, and recycling refrigerant.

In years past, R-22 was so inexpensive, that technicians simply vented it to the atmosphere when servicing equipment and replaced it with new refrigerant. Not only is that expensive today, it's illegal. There are steep fines for venting R-22 to the atmosphere.

Yet, some contractors must be venting because the stock of recycled R-22 is well below projections. For the record, Outer Banks Heating & Cooling technicians *always* recover and reclaim refrigerant. It's irresponsible to do otherwise.

## How A Shortage Impacts You

The looming shortage does not mean we will run out of refrigerant in the near term. It means that prices will increase steeply until demand balances supply. In other words, R-22 will still be available, but it will be even more expensive.

"This won't affect you unless your air conditioner or heat pump has a leak". It shouldn't. Air conditioning systems are closed loop systems. Absent leaks, they will not require additional refrigerant. You should not need to "fill up" the air conditioner or heat pump with refrigerant every year.

## **Preventing Leaks**

Air conditioners and heat pumps are electro-mechanical systems and to operate efficiently, they require regular maintenance. The same maintenance will also reduce the possibility that your air conditioner or heat pump will develop a refrigerant leak. If you have not had your air conditioner or heat pump tuned-up this year, schedule it right away. You will save more on energy from a well-running system than you will spend on the tune-up.

Even well-maintained systems can develop leaks from time to time. These should be fixed immediately. Refrigerant leaks will not only hurt the ozone layer, they can severely damage the compressor of your system (the component that pumps the refrigerant through the system) and this will hurt your wallet.

If the leak cannot be fixed, the air conditioner or heat pump should be replaced with one of the new models that uses the alternative R410-a refrigerant.

## **Alternative Refrigerant**

The air conditioning industry has settled on R-410a as the replacement for R-22. "It's an excellent refrigerant and we've been installing them for over 10 years, but it's not compatible with R-22." We cannot simply substitute it for R-22. The entire system must be replaced in most cases.

The new R-410a air conditioners and heat pumps operate under higher pressures, which means special training is required to install and service them (all of our technicians have received this training).

You might be surprised how efficient these air conditioners and heat pumps are. If your air conditioning system is more than 15 years old, it's possible that we can cut your cooling costs in half with one of these new systems and help the environment. Call us at 441-1740 and we'll prepare a complimentary (**FREE**) analysis showing how much you can save. We can also improve your indoor air quality and solve almost any indoor comfort problems (e.g., one room is always too hot or cold) that you may have.

If you have any questions regarding the phase out of the R-22 refrigerant please contact me at (252) 441-1740 or by e-mail at [brian@obhc.com](mailto:brian@obhc.com).

Brian McDonald  
General Manager