



410a Refrigerant Update

New Regulation – 410a refrigerant replacing R-22 in HVAC Equipment

Beginning in 2010, the Environmental Protection Agency will no longer allow newly built HVAC equipment to use the refrigerant R-22. In its place, HVAC equipment manufacturers will build equipment that uses the refrigerant 410a, which is a more efficient system. In preparation for this regulatory deadline, manufacturers have begun phasing out equipment that uses R-22 refrigerant.

Additionally, in 2020, the EPA will ban the production and import of R-22 refrigerant, which will greatly increase the cost of obtaining R-22 for technicians.

The federal, state and city code requirements, laws and regulations as well as manufacturer specifications that coincide with this new regulation will significantly effect how technicians perform air-conditioning system replacements.

Here is an EPA website link for further detail:

<http://www.epa.gov/ozone/title6/phaseout/hcfcfaqs.html>

How will this affect home warranty clients?

Generally, home warranty plans replace major HVAC components using builder's grade equipment with similar features, capacity, and efficiency. These plans often do not cover upgrades (such as to brand, efficiency or size), modifications to the existing equipment required by the new equipment, and upgrades required by government regulations or code requirements. These exclusions from coverage, in addition to other limitations, allow home warranty companies to maintain plans priced in the \$300 to \$400 level.

In the event that your home warranty company approves the replacement of a major component of your Air Conditioning System, such as a Condenser (outside unit), Evaporator Coil (inside unit), or Air Handler (inside unit), the typical standard home warranty plan will not cover the upgrades and modifications that are required by the new 410a equipment.

Member companies within the Texas Warranty Association are researching these changes and how to best provide additional coverage for the consumer. And, each residential service contract has different coverage and limitations. So, for specific inquiries, please contact your residential service contract provider.



Can you provide an example of how the regulations may affect coverage?

For example, if a client's R-22 Condenser needs replacement—since only 410a Condensers will be available for purchase—the home warranty plan will generally cover the cost of a R-22 Condenser and installation, but the client should expect to pay the service provider for the following non-covered costs:

- 1) Upgrade existing R-22 Condenser to a 410a Condenser
 - a. Reclaim and dispose of old R22 refrigerant
 - b. New condenser may require additional 410a refrigerant
 - c. Estimated non-covered cost for above \$150 and up

- 2) Option 1 - Replace existing R-22 Coil (inside unit) with 410a rated Coil
 - a. Install new coil: estimated cost of \$1,600 and up
 - b. Clean line set (copper lines connecting the inside and outside units): estimated cost of \$250 and up
 - i. In some cases, the existing line set may need to be replaced

- 3) Option 2 - Modify existing R-22 Coil with 410a rated TXV
 - a. Install new TXV onto old coil: estimated cost of \$200 and up
 - b. Clean line set: estimated non-covered cost \$250 and up
 - c. TXV enhanced R-22 coil may only be an option for Coils that are approximately 1-2 years old. Furthermore, many HVAC technicians will not guarantee the system will work with this configuration because:
 - i. 410a systems operate at much higher pressure than R22 systems, which could cause the old coil to leak refrigerant.
 - ii. It is not possible to adequately clean the oil and debris out of the old coil, so the old coil will circulate this oil and debris into the new 410a condenser, lowering its efficiency and useful life.

The above estimates are in addition to the normal non-covered costs of a Condenser replacement under a typical home warranty, which are estimated at \$500 and up. So, with these regulatory changes, a covered condenser replacement may require out-of-pocket expenses of approximately \$1,200 to \$2,400 or more to upgrade and modify your system.

It is important to note that every home is different--which means the condition, age, brand, and accessibility of the equipment is different--and because of this, these estimated costs will vary. Therefore, do NOT rely on this general information; instead, please contact a licensed HVAC contractor for specific information on your home's HVAC System.



What are the benefits of a 410a system compared to the old R22?

Of course, the benefits of the new 410a HVAC system are important to note.

First and foremost, a 410a HVAC system is more efficient compared to an older R-22 system, which means lower utility usage. Depending upon the SEER efficiency rating of your new system, you can expect an electricity usage savings of up to 20% or more.

Secondly, these new systems will benefit the environment because R-22 has negative environmental effects.

Finally, the re-sale value of your home should benefit with a new 410a system versus an older R-22 system.

Where can I find more information on these changes?

Please contact your residential service contract provider to determine your plan's coverage.

For more information on 410a refrigerant regulations, please see:

<http://www.epa.gov/ozone/title6/phaseout/hcfcfaqs.html>