



HARDI R-22 Phaseout Fact Sheet

Key Facts & Outcomes from the Final U.S. EPA HCFC Phaseout Rules

Minivalco

What's this about?

Two EPA regulations were finalized in early December 2009:

- Protection of Stratospheric Ozone: *Adjustments to the Allowance System for Controlling HCFC Production, Import, and Export- Referred to as "The Allocation Rule"*
- Protection of Stratospheric Ozone: *Ban on the Sale or Distribution of Pre-Charged Appliances- Referred to as "The Pre-Charged Rule"*

What this means for Refrigerants:

- The **production and consumption caps** for R-22 step down approximately 10% annually from 2010 through 2014.
- 20% of estimated R-22 demand will need to come from reclaimed refrigerant.

What Products Are Affected?

Appliances (split systems, packaged systems, refrigeration systems) are clearly defined as meeting four criteria:

1. Refrigerant circuit is complete
2. Appliance can function
3. Appliance is charged with refrigerant
4. Appliance is ready for intended use

Components (condensing units, compressors, line-sets) are clearly defined as meeting three criteria:

1. OEM has completed assembly
2. Charged with refrigerant
3. Ready for initial distribution or sale

Manufacturers are prohibited from continuing to sell or distribute components pre-charged with virgin or reclaimed refrigerant, or blends including HCFCs, on or after January 1, 2010.

What happens after January 1, 2010? Servicing vs. New Installation

Regarding **any residential and commercial R-22 system repair** (i.e. existing footprints) after Jan. 1, 2010:

- Both rules clearly state that there are no prohibitions to the continued servicing of existing R-22 air conditioning and refrigeration systems. Distributors can sell and technicians can install any components necessary to maintain existing systems as long as any pre-charged components (residential condensing units, for example) are manufactured before January 1, 2010.
- There are no sale or distribution restrictions on components in inventory before January 1, 2010 when used for servicing purposes.

Regarding **new construction, additions, system expansions** (i.e. new footprints) after Jan. 1, 2010:

- "New" is defined as installing an appliance using virgin R-22, R-142b, or any blend thereof where one did not previously exist.
- Virgin R-22, R-142b, or blends thereof cannot be used to initially charge a new air-conditioning or refrigeration system after January 1, 2010 **except when:**
 - A new installation project (i.e. new construction or major system expansion) was approved, permitted, or products were procured in 2009 in which case such projects have until December 31, 2011 to be completed with HCFC virgin refrigerant.
 - A new system installation is initially charged entirely with reclaimed refrigerant.



Here's a useful analogy:

Servicing is working on an existing system footprint, while a new installation is the creation of a new system footprint.



R-22 Phase-out

Frequently Asked Questions as of December 18, 2009

Q. Will there be a shortage of R-22?

A. The "Allocation Rule" is designed to maintain 12,500 MT (27.5 million pounds) shortfall between the supply (production and importation) of virgin R-22 and the estimated servicing demand each year of the control period, 2010-2014. This is intended to preserve and grow the value of reclaimed refrigerant that will be necessary to meet estimated servicing demand.

Q. Is there a limit to the number of components a contractor can replace while servicing an existing R-22 air conditioning or refrigeration system?

A. The EPA clearly defines "servicing" to include component replacements such as condensing units, compressors, line sets and coils, and sets no specific limit as to how many components can be replaced during "servicing" throughout a system's lifetime, as long as any pre-charged components were manufactured prior to Jan. 1, 2010.

Q. Can new commercial refrigeration condensing units, usually sold without a pre-charge of R-22, manufactured before or after Jan. 1, 2010 be charged on-site with virgin R-22?

A. The date of manufacture is a non-factor for non pre-charged components such as these. Components that are not pre-charged with R-22 (i.e., carrying only a holding charge of an inert substance like nitrogen) and used for servicing an existing system can be charged on-site with virgin R-22, but not if being used for a new installation, or expansions of an existing system.

Q. How will these regulations be enforced?

A. The EPA has a separate enforcement division that responds to complaints and takes enforcement actions. Civil penalties such as fines up to \$37,500 per offense, and criminal penalties such as imprisonment can be levied by the EPA for illegal venting, illegal production or importation of HCFC substances, and violations of the new ban on the sale or distribution of pre-charged appliances.

Q. Does the limited two-year exemption for new construction projects apply to quoted items?

A. No. This limited exemption applies only to new construction or expansion projects requiring the installation of a new air conditioning or refrigeration system that was permitted and procured prior to Jan. 1, 2010 and completed on or before Dec. 31, 2011. *For example, a new residential development is permitted in 2009 with R-22 air conditioning equipment specified and indoor equipment is installed, but the outdoor units remain in inventory until the home sells. As long as the home sells (i.e. project is completed) prior to Dec. 31, 2011, the R-22 system's installation can be completed after Jan. 1, 2010 using virgin R-22.*

Q. How do PTACs (packaged units) factor into these regulations?

A. PTACs which are pre-charged and completed by the OEM, are considered appliances meaning they have completed refrigerant circuits and are ready for their intended use. On or after Jan. 1, 2010, these kinds of appliances can no longer be manufactured with virgin or reclaimed R-22, R-142b, or any blend thereof. PTACs manufactured before that date can continue to be sold and installed until inventories are exhausted.

Q. Will I need to segment my inventories of virgin and reclaimed R-22?

A. Possibly. It will be prohibited to pre-charge appliances or components with virgin or reclaimed refrigerant on or after Jan. 1, 2010 (which includes field-assembled systems), but new installations (complete appliances where one did not previously exist) can only be initially charged with reclaimed refrigerant on or after Jan. 1, 2010.

Q. Is there a chance HFC refrigerants such as R-410A will be phased out too?

A. There is a chance. The U.S. Congress and the international community are considering several proposals to phase down (not phase-out) HFC substances such as refrigerants due to their high global warming potential, with the earliest proposed starting date of 2012 and gradual reductions through 2040, but nothing is certain at this time.

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