



CONSERVE

LEGISLATION BULLETIN

F-GAS
&
R22 PHASE OUT

IS YOUR BUILDING COMPLIANT WITH EUROPEAN REFRIGERANT LEGISLATION?

'WHAT THE NEW & PROPOSED REGULATIONS FOR REFRIGERANTS USED IN AIR CONDITIONING MEAN TO YOU AS A BUILDING MANAGER/OWNER/OPERATOR'

We are aware of our responsibilities, and those of our customers, to ensure that both legal and moral environmental obligations are achieved within a viable economic strategy. Following considerable debate the new EC fluorinated greenhouse gas Regulation No 842/2006 became law in July of 2006 and becomes effective in the UK from 4th July 2007. In addition all users of HCFC refrigerant gases should be aware of, and plan for, the phasing out of R22 and derivative blends by the end of 2009. We hope the information below will be useful in helping you plan for these changes in a structured and cost efficient way.

NEW F-GAS REGULATION THIS BECOMES MANDATORY IN JULY 07

What is the new regulation?

The regulation relates to specified HFC's and PFC's and to SF6, collectively known as F-Gases* and deals with containment, recovery, training and certification, reporting, labelling, control of use and placing on the market of such gases.

The containment provisions relate to stationary refrigeration, air conditioning and heat pump equipment as well as fire protection systems. There is a requirement (where technically feasible and not disproportionately costly) to prevent leakage and to repair any leaks that are found.

There must be a schedule of leakage inspections by certified personnel, dependant on charge size for applications containing 3kg or more of F-Gas. Records of such inspections must be kept. Recovery provisions are in two parts. For stationary cooling circuits, solvents, fire protection systems and switchgear, proper recovery by certified personnel is mandatory.

Training and certification provisions apply to those involved in leakage detection and repair, and in recovery. It is the responsibility of the equipment operator to ensure that the relevant personnel have the necessary certification.

The onus for compliance with the regulations is on the owner / manager / operator of the building and not any contractors that are performing the required activities. The 'operator' is defined as 'the natural or legal person exercising actual power over the technical functioning of the equipment and systems covered by the Regulation.'

What does this mean for you?

Simply that from July 2007 the building owner, manager or operator will be responsible for ensuring that there are effective leak detection, maintenance, inspection and refrigerant recovery protocols in operation for any air conditioning equipment, and other equipment as outlined above, using any of the refrigerants specified, in systems containing more than 3kgs of refrigerant.

Failure to comply with the new regulation may result in a substantial fine should there be a leak or if the maintenance programme cannot demonstrate suitable recovery, reclamation and recharging procedures.

**Be careful when using trade-named products, always check with the supplier. Ozone Depleters such as R22 and other HCFCs are dealt with over the page.*

SOME KEY ASPECTS

The regulation covers refrigerants containing HFCs & HFC/HCFC blends even though HCFCs on their own are not covered*. These are:

Commonly Used Refrigerants

R134a, R403 (A/B), R404A, R407C, R408A, R410A, R413A, R417A, R507

Less Common Refrigerants

R23, R32, R125, R143a, 401(A/B/C), R402(A/B/), R407A/B/D, R411B, R416A, R422A, R423A, R507, R508

Record Keeping

For all units containing more than 3kg of F-gases records must be kept, indicating the quantity and type of product used, any quantities added, the quantity recovered during servicing and maintenance and its final disposal, along with details of any leak instances and actions taken. The name of the servicing company or technician, and the dates and results of the checks are also required.

Leakage Inspection

A periodical check for leaks by certified personnel is required, with the following frequency, depending on the quantity used in the system.

- ◆ **3 kg or more:** at least once every 12 months - except for hermetically sealed systems containing < 6 kg
- ◆ **30 kg or more:** at least once every 6 months**
- ◆ **300 kg or more:** at least once every 3 months**

** The frequency is halved if a properly functioning leak detection system is in place. These are mandatory on systems with >300kg

Leakage Detection Systems

- ◆ For 300 kg or more units, leakage detection systems must be checked at least once every year
- ◆ In the case of fire protection systems using F Gases, installed before 04/04/07, leakage detection must be installed by 4 July 2010.

KEEPING YOU AWARE OF LEGAL OBLIGATIONS
TO HELP YOU MAKE INFORMED DECISIONS

COMPLYING WITH THE HCFC & R22 PHASE OUT REGULATION

What is this regulation

EU Ozone Regulation EC2037/2000 covers the phasing out of ozone depleters such as the commonly used R22 and **also** includes some blends covered under the F-Gas Regulation. It could affect over 100,000 systems in the UK alone. Below are some key future dates.

- ◆ In 2008 alone it is aimed to cut HCFC production by 16%
- ◆ By the end of 2009 the sale and use of 'virgin' (ie newly produced) HCFCs for the service and maintenance of residential and commercial air conditioning will be banned.
- ◆ From Jan 2010 to Dec 2014 only the use of recycled / reclaimed (not stockpiled) HCFCs will be allowed
- ◆ From January 2015 there will be a

complete ban on the use in service of HCFCs and they must be destroyed at the end of their life (ie not recycled or reclaimed)

What are the implications of this?

- ◆ Availability of low cost, high quality product will gradually reduce
- ◆ By 2010, demand for recycled / reclaimed product could exceed supply especially as the regulation affects all of Europe
- ◆ By 2010 the quality of some product available will be lower than expected
- ◆ Process critical operations will be most at risk
- ◆ Likely to be a large cost increase in 2010 and beyond affecting the operating cost-effectiveness of systems that have not been converted or replaced

What Do You Need To Do?

If you control a system that does not use HFC or HCFC refrigerant, you only need to ensure that correct maintenance regimes are in place and adhered to, so that optimum operational efficiency is maintained and equipment warranties are not compromised. If it uses an F-Gas or HCFC refrigerant **THEN PLAN AHEAD!**

Before July 07 you will need to:

- ◆ Ensure that adequate leak-detection systems are in place in line with the criteria set out by the regulation and review the maintenance schedules of this equipment to ensure that it will be regularly inspected
- ◆ Ensure records will be kept of such inspections by suitably qualified and certified personnel either those directly employed or those of sub-contractors
- ◆ Investigate the relative merits of conversion against replacement - the replacement of an old inefficient system with more modern equipment will provide a dual benefit in terms of being complaint and saving money on operating costs

After July 07 you will need to:

- ◆ Ensure that either directly employed or contracted-out personnel are carrying out activities in compliance with the regulation and that they are suitably qualified to do so
- ◆ Consider the implication of both regulations in the final equation and act early to spread the cost
- ◆ Be aware that various grants and financial incentives exist to upgrade or replace systems to comply with the new regulations

Before January 2010 you should have:

- ◆ Made plans to upgrade or replace equipment using phased out refrigerant to minimise the impact on your organisation both operationally & financially
- ◆ Employed a specialist, professional provider to manage the transition, who will work in partnership with you to achieve the optimum result, both short and long term

How Comserve can help you face the challenges?

- ◆ We are specialists in the air conditioning sector with over 20 years experience of designing, installing and maintaining systems in a wide variety of applications
- ◆ We will assess the capabilities of your current system and service / maintenance procedures in relation to both regulations
- ◆ We will provide a comprehensive schedule of upgrade or replacement requirements to ensure both compliance with regulations and optimising operational and cost efficiency
- ◆ Our depth of experience enables us to integrate these specific requirements within a comprehensive building services support and development package to meet both immediate and future needs
- ◆ Our knowledge base is constantly expanding through providing a similar service to our existing customers, many of whom are well known, prestigious organisations
- ◆ We are aware of our responsibilities, and those of our customers, to ensuring that both legal and moral environmental obligations are achieved within a viable economic strategy
- ◆ We work in partnership with our customers to provide the best overall solution to meet both your short and long term requirements

Your next step

Contact us for an informal meeting and brief review of the equipment you control and its preparedness to meet the forthcoming changes in regulations. There is no obligation but we hope that we can demonstrate that we are both capable and prepared to deliver the best solution to these challenges.

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**IMPROVING BUILDING SERVICES EFFICIENCY
TO PROTECT THE BUILT & NATURAL ENVIRONMENT**