Department for Environment, Food and Rural Affairs

Guidance for Stationary Refrigeration & Air-Conditioning

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Guidance: F Gas and Ozone Regulations	Š
Information Sheet RAC 1: Overview	Cas
April 2012	
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Relevant Information for RAC System Users	

This Information Sheet is the first in a series that provides guidance on compliance with the EU F gas and Ozone Regulations in relation to stationary refrigeration, air-conditioning and heat pump equipment (RAC systems) in the UK. Certain obligations apply to the use of refrigerants containing F gas and Ozone Depleting Substances (ODS) in all RAC systems. The obligations apply in many end use sectors, such as supermarket and other retail operations, office buildings, leisure centres, hospitals and universities and many industrial sectors (e.g. food, drink and chemical manufacturing).

Please note, this Information Sheet only refers to use of RAC systems, which is the main area of F gas and ODS use for most organisations. Refer to Information Sheet GEN 3 to check whether you have any other uses of F gases.

Summary of Key Obligations under the EU F Gas Regulation

Many organisations use RAC systems with HFC refrigerants, which are F gases. If such refrigerants are used, the company must ensure that it meets the requirements in EU Regulation 842/2006 on certain fluorinated greenhouse gases (F gases) and the GB Fluorinated Greenhouse Gases Regulations 2009 (Statutory Instrument No 261). The obligations for companies using RAC systems are described in more detail in Information Sheet RAC 3. In summary, the EU F gas Regulation requires:

Lea	ak Checks	Regular checks for let kage; use of automatic leak detection on large systems.
Re	covery	Refrigerant recovery during place servicing and maintenance and at end of life.
Re	cords	Good records kept for equipment containing 3 kg or more of F gases.
Tra	ining &	Use of personner with appropriate qualifications.
	rtification	Company Certification required for all companies employing
		personnel to undertake work on equipment containing or designed
	4	to contain F gases (includes sole traders).
	(1)	Companies taking delivery of F gases need to employ personnel
		with appropriate qualifications if undertaking leak checking, gas
	0	recovery, plant installation, maintenance or servicing.
Off	\$ O	Certain other actions including labelling of new equipment.
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Summary of Key Obligations under the EU Ozone Regulation

If an organisation is using HCFC refrigerants (such as R22) it must also comply with the requirements of EU Regulation 1005/2009 (this regulation came into force on 1st January 2010 and replaced the old Ozone Regulation EC 2037/2000 which has now been revoked) and GB Statutory Instruments 2011 No. 1543 and 2009 No. 216. In summary, the EU Ozone Regulation requires:

Phase-Out	Phase-out of HCFC usage between 2010 (virgin fluid) and 2015 (recycled/reclaimed fluid).
Leak Checks	Annual leakage checks for equipment containing 3 kg or more refrigerant.
Recovery	Refrigerant recovery during plant servicing and maintenance and at end of life.
Records	Good records kept for equipment containing kg or viole of an HCFC.
Training	Use of personnel with prescribed qualifications.

Who is responsible for meeting these obligations?

Most of the key obligations under the EU F gas Regulation are the responsibility of the "operator" – defined as "the natural or legal person exercising actual power over the technical functioning of the equipment and systems".

RAC contractors and equipment suppliers also have certain obligations. See Information Sheet RAC 3 for more detail about responsibility for compliance.

Some Critical Dates

4 th July 2007	Regular leak testing for F gas systems containing 3 kg or more, refrigerant recovery from all systems, record keeping, use of approximately qualified personnel. Leaking testing of systems containing 3 kg or more of ODS is already mandatory.
1 ^s April 2008	Labels (in a standard format) stating amount and type of F gas contained must be fitted to all new equipment adjacent to the service point.
1 st Jan 2010	Phase-out of virgin HCFC use.
4 July 2011	Interim personnel and company certification no longer valid. All personnel working on RAC equipment containing or designed to contain F gases to be certified to the minimum Commission requirements. The organisations that employ those personnel need to hold a full Company Certificate.
1 st Jan 2015	Phase-out of recycled/reclaimed HCFC use.

Relevant Information for RAC System Users

Defra has produced a set of information sheets that are intended to help companies understand all their obligations under the EU F gas and Ozone Regulations.

The following information sheets will be of relevance to RAC system users:

requirements for RAC personnel and contracting companies. RAC 6 Practical Guidance – dealing with numerous detailed RAC topics included leak testing, refrigerant recovery, record keeping and abelling of equipment. RAC 7 Alternative Refrigerants – minimising emissions and options for refrige selection. RAC 8 HCFC Phase-out. General F Gas and ODS Information Sheets GEN 1 Glossary of terms related to F gas and ODS Regulations. GEN 2 Background to F gas and ODS huds. GEN 3 Overview of markets and equipment affected by the F gas and ODS Regulations. GEN 4 Links to full copies of all relevant Regulations and legislation. GEN 5 Guidanse on estimating refrigerant charge.	Number	Content of Information Sheet
Background to F gas and ODS use in RAC Systems. Sources of emissions. Emission reduction opportunities. Alternative refrigerants. RAC 3 Detailed description of key obligations for companies. RAC 4 Getting started – advice on the steps to take to achieve compliance. RAC 5 Qualifications & Certification – details about the raining and retification requirements for RAC personnel and contracting companies. RAC 6 Practical Guidance – dealing with numerous detailed RAC topics include leak testing, refrigerant recovery, record keeping and labelling of equipment. RAC 7 Alternative Refrigerants – minimising emissions and options for refrige selection. RAC 8 HCFC Phase-out. General F Gas and ODS Information Sheets GEN 1 Glossary of terms related to F gas and ODS Regulations. GEN 2 Background to F gas and ODS meds. GEN 3 Overview of markets and evaluament affected by the F gas and ODS Regulations. GEN 4 Links to full copies of all relevant Regulations and legislation.		
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RAC 4 Getting started – advice on the steps to take to achieve compliance. RAC 5 Qualifications & Certification – details about the training and seltification requirements for RAC personnel and contracting companies. RAC 6 Practical Guidance – dealing with numerous detailed RAC topics included leak testing, refrigerant recovery, record keeping and abelling of equipment. RAC 7 Alternative Refrigerants – minimising emissions and options for refrigence selection. RAC 8 HCFC Phase-out. General F Gas and ODS Information Sheets GEN 1 Glossary of terms related to F gas and ODS Regulations. GEN 2 Background to F gas and ODS in ds. GEN 3 Overview of markets and examment affected by the F gas and ODS Regulations. GEN 4 Links to full copies of all relevant Regulations and legislation. GEN 5 Guidance on estimating refrigerant charge.	RAC 2	
RAC 5 Qualifications & Certification – details about the raining and relification requirements for RAC personnel and contracting companies. RAC 6 Practical Guidance – dealing with numerous detailed RAC topics included leak testing, refrigerant recovery, record keeping and abelling of equipment. RAC 7 Alternative Refrigerants – minimising missions and options for refrige selection. RAC 8 HCFC Phase-out. General F Gas and ODS Information Sheets GEN 1 Glossary of terms related to F gas and ODS Regulations. GEN 2 Background to F gas and ODS nods. GEN 3 Overview of markets and evaluation and legislation. GEN 4 Links to full copies of all relevant Regulations and legislation. GEN 5 Guidance on estimating refrigerant charge.	RAC 3	Detailed description of key obligations for companies.
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GEN 1 Glossary of terms related to F gas and ODS Regulations. GEN 2 Background to F gas and ODS finds. GEN 3 Overview of markets and equipment affected by the F gas and ODS Regulations. GEN 4 Links to full copies of all relevant Regulations and legislation. GEN 5 Guidance on estimating refrigerant charge.	RAC 7	Alternative Refrigerants – minimising emissions and options for refrigeral selection.
GEN 1 Glossary of terms related to F gas and ODS Regulations. GEN 2 Background to F gas and ODS finds. GEN 3 Overview of markets and equipment affected by the F gas and ODS Regulations. GEN 4 Links to full copies of all relevant Regulations and legislation. GEN 5 Guidance on estimating refrigerant charge.	RAC 8	HCFC Phase-out.
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