



PRACTICAL GUIDE TO THE F-GAS REGULATION

The main focus of the Regulation is on containment and recovery of F gases, together with harmonised restrictions on the marketing and use of F gases in applications where containment of F gases is difficult to achieve or the use of F gases is considered inappropriate and suitable alternatives exist.

This guide has been produced by the British Refrigeration Association to inform the refrigeration user supply chain on their obligations under the Regulation as known on 4th July 2007. The guide covers the following aspects of the Regulation:

- Requirements for Leak Prevention and Detection
- Reporting
- Minimum Training Requirements
- Second Leak Check Requirement Following a Repair
- Definition of Operator

Plus a BRA recommendation:

- Storage of Unused Refrigerant at Customer's Site

And

- References
- Appendixes

Requirements for Leak Prevention and Detection

- Systems containing more than 3kg must be checked for leakage every 12 months. This does not apply to hermetic systems, which are labelled as such, containing less than 6kg.
- Systems containing more than 30kg must be checked for leakage every 6 months.
- Systems containing more than 300kg must be checked for leakage every 3 months and fixed leak detection systems must be installed. The leak detection system must be checked for operation every 12 months.
- Systems between 30kg and 300kg that have fixed leak detection systems installed can have their examination frequency extended to 12 months.
- Once a leak is repaired a further check has to be carried out within one month to confirm the repair is effective.

The BRA would recommend the following additional measures:

- Where leak detection systems are installed the alarm be linked to a critical alarm, and, where facilities exist for automatic alarm remote notification, this critical alarm should be enabled to allow rapid response.
- Where liquid receiver low level alarms are fitted it is recommended that these alarms should be treated similarly to the above.

- All effort should be made by the assigned service company to ensure refrigerant alarm activated service visits are classed as a priority call and every effort must be made to attend site as quickly as possible.
- Consideration should be given to the possibility of reducing system charge, where this would not compromise efficient performance and safety considerations.

Reporting

Records must be kept about each system with more than 3 kg of HFC refrigerant. The obligation will apply from 4 July 2007. The records must include the following information:

- The quantity and type of F-Gas refrigerant installed in each system.
- Any quantities of refrigerant added.
- The quantity of refrigerant recovered during servicing, maintenance and final disposal.
- Identification of company or technician who performed the service or maintenance.
- Dates and results of leak checks and leak detection systems checks.

The records shall be made available on request to the competent authority and to the Commission.

The form of the record does not have to be prescribed at EC level, however, a sample log book can be found in Appendix 1 as a suggestion.

Minimum Training Requirements

For the present in the UK the minimum requirement for personnel handling F-Gas refrigerants is the City & Guilds 2078 certificates in Handling Refrigerants or the CITB Safe Handling of Refrigerants certificate.

Consultations are still continuing across the 27 Member States and the above may be subject to change in 2008.

Second Leak Check Requirement Following a Repair

It is a requirement that all refrigerant leak repairs receive an additional check. This second check has to be completed within one month of the repair being completed. The Commission has agreed that this does not have to take place on a separate day or require a return visit.

In practice this means that a repair could be made by the engineer and the additional check performed at a time deemed suitable by the engineer. Practical considerations will influence this decision, such as the accessibility of the repair. For example both events can have the same date with the second check start time being shortly after the repair finish time.

Records will need to show the leak repair as the first event and the additional check as the second event. The engineer will need to record the date, start and finish times for each event.

Definition of Operator

Operator means the natural or legal person exercising actual power over the technical functioning of the equipment and systems covered by the Regulation. A Member State may, in defined, specific situations, designate the owner as being responsible for the operator's obligations.

The actual power over the technical functioning of a piece of equipment or system should be understood as including the following elements:

- Free access to the system, which entails the possibility to supervise its components and their functioning, and the possibility to grant access to third parties.
- The control over the day-to-day functioning/ running, for example, being able to take the decision to switch it on or off.
- The power (including financial power) to decide on technical modifications, modification of the quantities of F-Gases in the system, and to have checks or repairs carried out.

If all these elements are devolved by the operator to a third party through contractual arrangements, the authority of operator and the responsibilities attached to it under Regulation 842/2006 should be deemed transferred to that third party, provided that such a transfer is compatible with national law. In particular, for such a transfer to be deemed valid in a given Member State, the penalties laid down in pursuance to Article 13 must be applicable to the person recognised as operator on the basis of contractual arrangements.

If these elements are only partially transferred, the responsibilities of operator should not be deemed transferred.

Fuller details on the definition of operators and contractual examples can be found in the Commission's guidance and interpretation paper attached as Appendix 2.

Storage of Unused Refrigerant at Customer's Site – BRA Recommendation

It is recommended that refrigerant left over following installation, service, maintenance or repair should NOT be left at the customer's site but should be returned to the supplier or contracting company's premises.

References

Further information on the F-Gas Regulation can be found at :

www.acrib.org.uk

www.defra.gov.uk/environment/climatechange/uk/fgas/index.htm

www.dti.gov.uk/innovation/sustainability/fgases/page28889.html

www.epeeglobal.org

Appendices

- 1 ACRIB logbook
- 2 Commission's guidance and interpretation – 'Operator'

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Commission's guidance and interpretation paper on certain issues arising from Regulation (EC) 846/2006 on certain fluorinated greenhouse gases

1. Definition of "operator"

It is necessary that the operator is identified unambiguously for each item of equipment and system containing fluorinated greenhouse gases subject to Regulation (EC) 842/2006, by all interested parties including itself. The aim of this section is to provide guidance that will help to identify the operator in any circumstances.

According to Article 2, point 6, "*operator*" means the natural or legal person exercising actual power over the technical functioning of the equipment and systems covered by the Regulation. A Member State may, in defined, specific situations, designate the owner as being responsible for the operator's obligations".

The "actual power over the technical functioning" of a piece of equipment or system should be understood as including the following elements:

- free access to the system, which entails the possibility to supervise its components and their functioning, and the possibility to grant access to third parties;
- the control over the day-to-day functioning/running (e.g. take the decision to switch it on or off);
- the power (including financial power) to decide on technical modifications (e.g. replacement of a component, installation of a permanent leak detector), modification of the quantities of F-gases in the system, and to have checks or repairs carried out.

All these elements are needed to fulfil the obligations placed by Regulation (EC) No 842/2006 on "operators": prevent leakage, have any detected leakage repaired as soon as possible, have regular checks for leakage carried out by certified personnel according to the schedule set down in Article 3, install leak detection systems, maintain records, have recovery carried out by certified/appropriately qualified personnel.

If all these elements are devolved by the operator to a third party through contractual arrangements, the authority of operator and the responsibilities attached to it under Regulation (EC) No 842/2006 should be deemed transferred to that third party, provided that such a transfer is compatible with national law. In particular, for such a transfer to be deemed valid in a given Member State, the penalties laid down in pursuance to Article 13 must be applicable to the person recognised as operator on the basis of contractual arrangements.

If these elements are only partially transferred, the responsibilities of operator should not be deemed transferred. For instance, if company A manages a supermarket, and signed a maintenance contract with company B according to which company B will come and check the system on a certain schedule and carry out the necessary repairs, while company A maintains responsibility over the access to the installation and day-to-day running, company B should not qualify as the operator. If the contract devolves full access to the system, the

control over the day-to-day running and the possibility and to carry out any repair, check, or technical modification is needed without prior consent by company A, company B should qualify as the operator.

Another possibility is to devolve all the obligations placed on the operator by Regulation (EC) No 842/2006, to a third party. If company A operates a system and signs a contract with company B which explicitly states that the authority of operator and all the obligations attached to it under Regulation (EC) 842/2006 are devolved to company B, then company B should qualify as the operator, provided that company B can be subject to the penalties set down in pursuance to Article 13 under national law. In such situations, the elements stated above which are necessary to fulfil these obligations should be transferred to company B as well through the contractual arrangements.

1.1 Natural or legal person

It is expected that in most cases, the operator will be a legal (typically, a company) rather than a natural person, as except for domestic or small commercial installations, the technical power over the technical functioning of the installation will normally not be by a single individual. In particular, if a natural person handles an installation only in his capacity as a staff member of a company, he will not have the power to take all the decisions that are necessary to exercise the "actual technical power" over its functioning and comply with the legal provisions that the Regulation puts upon operators (e.g. decide on the necessary repairs).

The terms "natural" or "legal person" are not defined in the Regulation and should therefore be interpreted in accordance with national laws.

1.2 Operator / owner

Article 2 (6) makes it clear that ownership is not a criterion to be used to identify the operator. It suggests that Member States may designate the owner as being responsible for the operator's obligations even though the owner does not have actual power over the technical functioning of the system or equipment.

To avoid any legal uncertainty, the Member States that want to use that clause should make sure that legislative, regulatory or administrative provisions clearly identify the defined and specific situations in which the owner is responsible for the operator's obligations.

Annex 1

Sample Log Sheet for Record Keeping Obligation

The table below shows an example record sheet for compliance with the F gas Regulation. Records of this type must be kept for **each** refrigerant plant that contains more than 3 kg of HFC refrigerant.

General Information			
Plant Name		Reference No.	
Location of plant			
Plant Operator ⁷			
Operator Contact ⁸			
Cooling loads served			
Refrigerant Type		Refrigerant Quantity installed (kg)	
Plant manufacturer		Year of installation	
Refrigerant Additions			
Date	Engineer ⁹	Amount Added, kg	Reason for addition
Refrigerant Removals			
Date	Engineer	Amount Removed, kg	Reason for removal. What was done with recovered refrigerant
Leak Tests			
Date	Engineer	Test Result	Follow up actions required
Follow-up Actions			
Date	Engineer	Related to test on	Actions Taken
Testing of Automatic Leak Detection System (if fitted)			
Date	Engineer	Test Result	Comments

⁷ Name and address of company operating the plant

⁸ Contact details for Operator's nominated person responsible for F-Gas compliance

⁹ Identify both the Company and the actual Technician carrying out the work, with contact details – to provide evidence of competence.