

EC Regulation 842 of 2006 on Certain Fluorinated Greenhouse Gases

Information Document for Irish Industry

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1. Background

EC Regulation 842 of 2006 on Certain Fluorinated Greenhouse Gases commonly known as the F - gas Regulation, came into force on the 4th July, 2006. Many of the provisions of the Regulation only came into force on the 4th July, 2007. As an EU Regulation it is immediately applicable in all Member States.

2. What are F Gases?

F- gases are powerful greenhouse gases with global warming potentials many times that of natural greenhouse gases such as carbon dioxide. They also tend to remain much longer in the atmosphere than natural greenhouse gases. Because of this, they are included in the basket of gases controlled by the Kyoto Protocol and Parties to the Protocol that have an emissions target are required to control and reduce emissions of F- gases.

F-gases are man made substances and Regulation 842/2006 defines them as follows:-

‘fluorinated greenhouse gases’ means hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆) as listed in Annex I and preparations containing those substances, but excludes substances controlled under Regulation (EC) No 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer.

The use of F- gases has grown more than three-fold between 1995 (the Kyoto Protocol base year for these gases) and 2004. Although comprising less than 1% of total emissions in Ireland in 2004, there has tended to be a year-on-year increase in emissions of F-gases, attributable to increased semiconductor production, refrigeration and both stationary and mobile air-conditioning. Other uses include foams, fire extinguishers, aerosols, metered dose inhalers, and electrical equipment.

3. Sectors Affected

Any entity using F - gases is affected by this Regulation. In particular the following sectors are affected:-

- Refrigeration, air conditioning and heat pumps
- Fire protection systems
- High Voltage Switchgear
- Motor Vehicle air conditioning
- Use of F - gas solvents

The following sections indicate how these sectors will be affected.

4. Key Provisions of the Regulation

4.1 Article 1 Scope

The objective of this Regulation is to contain, prevent and thereby reduce emissions of the F - gases covered by the Kyoto Protocol. It shall apply to the fluorinated greenhouse gases listed in Annex A to that Protocol. Table 1 below contains a list of the F - gases currently covered by this Regulation, together with their global warming potentials. This table is included as Annex 1 to the Regulation.

Table 1: Fluorinated Greenhouse Gases covered under the Regulation

Fluorinated Greenhouse Gas	Chemical Formula	Global Warming Potential (GWP)
Sulphur hexafluoride	SF ₆	22 200
<i>Hydrofluorocarbons (HFCs):</i>		
HFC-23	CHF ₃	12 000
HFC-32	CH ₂ F ²	550
HFC-41	CH ₃ F	97
HFC-43-10mee	C ₅ H ₂ F ₁₀	1 500
HFC-125	C ₂ HF ₅	3 400
HFC-134	C ₂ H ₂ F ₄	1 100
HFC-134a	CH ₂ FCF ₃	1 300
HFC-152a	C ₂ H ₄ F ₂	120
HFC-143	C ₂ H ₃ F ₃	330
HFC-143a	C ₂ H ₃ F ₃	4 300
HFC-227ea	C ₃ HF ₇	3 500
HFC-236cb	CH ₂ FCF ₂ CF ₃	1 300
HFC-236ea	CHF ₂ CHFCF ₃	1 200
HFC-236fa	C ₃ H ₂ F ₆	9 400
HFC-245ca	C ₃ H ₃ F ₅	640
HFC-245fa	CHF ₂ CH ₂ CF ₃	950
HFC-365mfc	CF ₃ CH ₂ CF ₂ CH ₃	890
<i>Perfluorocarbons (PFCs):</i>		
Perfluoromethane	CF ₄	5 700
Perfluoroethane	C ₂ F ₆	11 900
Perfluoropropane	C ₃ F ₈	8 600
Perfluorobutane	C ₄ F ₁₀	8 600
Perfluoropentane	C ₅ F ₁₂	8 900
Perfluorohexane	C ₆ F ₁₄	9 000
Perfluorocyclobutane	c-C ₄ F ₈	10 000

Source: EC Regulation 842 of 2006 on Certain Fluorinated Greenhouse Gases

The definition of an F- gas also includes preparations containing F – gases. The concept of “preparation” is aimed at introducing a *de minimis* clause to address the cases in which, instead of a single F-gas substance, a mixture of one or several F-gas and possibly non-F-gas substances is used, fulfilling the same function as a single F-gas substance would do (refrigerant, propellant, extinguishing agent, blowing agent etc.) and is liable to be released into the atmosphere under normal conditions of use, with all the constituents being released into the atmosphere

together. According to this *de minimis* clause, the Regulation does not apply if the overall climate impact (GWP) of the emissions of such a mixture is below 150.

4.2 Article 2 – Definitions

This article contains definitions for the purpose of the Regulation. Some key definitions which will be important in implementation of the Regulation include the following:-

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

The Commission have provided some further clarification on the term operator outlined in Section 7 of this document. The correct interpretation of operator is important as the responsible person holding many of the responsibilities of the Regulation is the Operator.

‘placing on the market’ means the supplying of or making available to a third party within the Community for the first time, against payment or free of charge, products and equipment containing or whose functioning relies upon fluorinated greenhouse gases, and includes import into the customs territory of the Community.

‘leakage detection system’ means a calibrated mechanical, electrical or electronic device for detecting leakage of fluorinated greenhouse gases which, on detection, alerts the operator.

‘recovery’ means the collection and storage of fluorinated greenhouse gases from, for example, machinery, equipment and containers.

‘recycling’ means the reuse of a recovered fluorinated greenhouse gas following a basic cleaning process.

‘stationary application or equipment’ means an application or equipment which is normally not in transit during operation;

‘preparation’ means for the purposes of the obligations in this Regulation, excluding destruction, a mixture composed of two or more substances at least one of which is a fluorinated greenhouse gas, except where the total global warming potential of the preparation is less than 150. The total global warming potential of the preparation shall be determined in accordance with Part 2 of Annex I.

Please refer to the Regulation for the full set of definitions.

4.3 Article 3 – Containment

Article 3 is a key provision of the regulation and states that operators of the following stationary applications: refrigeration, air conditioning and heat pump equipment, including their circuits, as well as fire protection systems, which contain fluorinated greenhouse gases listed in Annex I, shall, using all measures which are technically feasible and do not entail disproportionate cost:-

(a) prevent leakage of these gases; and

(b) as soon as possible repair any detected leakage. A timetable is provided in the Regulation which determines the frequency of leak checks as follows:-

- At least once every twelve months for applications containing 3 kg or more of F - gases (this shall not apply to equipment with hermetically sealed systems, which are labeled as such and contain less than 6 kg of fluorinated greenhouse gases)
- At least once every six months for applications containing 30 kg or more of F - gases
- At least once every three months for applications containing 300 kg or more of F - gases

The applications must be checked for leakage within one month after a leak has been repaired to ensure that the repair has been effective. There is some flexibility regarding the follow up check which could in fact be carried out on the same day as the leak was repaired as long as enough time had elapsed to enable a repeat check.

It should be noted that operators of large equipment containing 300 kg or more of F - gases must install a leak detection system. The leak detection system must be checked every 12 months to ensure it is operating correctly. When a leak detection system is in place the frequency of checking can be reduced to once every six months for applications containing more than 300kg of F - gases and once per year for applications containing 30 kg of F – gases.

A requirement of the Regulation is that the Commission shall establish standard leak checking requirements for refrigeration, air conditioning and heat pump equipment (RAC) and for fire protection systems. This work is now complete and the implementing Regulations have been published in the Official Journal and are available on the Department website.

The leak checking procedures are stand alone but are based on internationally recognised standards such as EN 378 in the RAC sector. For the fire sector the regulation states that an existing inspection regime to meet ISO 14520 will fulfil the obligations of the Regulation as long as the inspections are at least as frequent.

An important aspect of the leak checking procedures is the maintenance of records in the form of a logbook.

The following should be recorded in the logbook:-

- Operators name and contact details
- Inspector/Operatives Name/ Certification ID Number
- Company Name/Certification Number
- F - gas charge
- Quantities and types of F gas installed
- Quantities added
- Quantities recovered for recycling, reclamation or destruction in the last year/from the first the date of last inspection
- Dates and results of leak checks
- Cause of leak should be identified

- Relevant information specifically identifying the separate stationary equipment of applications of more than 30kg

4.4 Article 4 – Recovery

Operators of the following types of stationary equipment are responsible since the 4th July 2007 for putting in place arrangements for the proper recovery by certified personnel (Article 5) of F - gases to ensure their recycling, reclamation or destruction:

- the cooling circuits of refrigeration, air-conditioning and heat pump equipment
- equipment containing fluorinated greenhouse gas-based solvents;
- fire protection systems and fire extinguishers; and
- high-voltage switchgear.

Furthermore there are also responsibilities on operators to ensure that F Gases contained in other products and equipment including mobile equipment unless it is serving military operations is recovered by appropriately qualified personnel to ensure their recycling, reclamation or destruction. There is a provision in the Regulation that this should be technically feasible and not involve excessive cost.

When a refillable or non-refillable fluorinated greenhouse gas container reaches the end of its life, the person utilising the container for transport or storage purposes shall be responsible for putting in place arrangements for the proper recovery of any residual gases it contains to ensure their recycling, reclamation or destruction. Non-refillable containers are now banned and cannot be placed on the market since the 4th July, 2007 (Annex II of Regulation).

The Regulation also states that recovery for the purpose of recycling, reclamation or destruction of F- gases shall take place before the final disposal of that equipment and, when appropriate, during its servicing and maintenance.

There are currently no recovery facilities for F- gases in Ireland and recovered F - gases will have to be recycled, reclaimed or destroyed abroad.

Waste F - gases are considered hazardous waste and subject to national and international hazardous waste legislation. The collection of waste is subject to the Waste Permit Regulations and can only be collected by an authorised waste collector. The Waste Management Collection S. I. 820 and Facility Permit Regulations S.I. 821 of 2007 contain some exemptions relevant to the collection and temporary storage of F gases. The regulations can be downloaded from the Department's website (www.environ.ie).

4.5 Article 5 – Training and Certification

Training and certification is a most important aspect of the Regulation and involves both individual and company certification. The Commission has established minimum requirements for the different industry sectors as follows:-

- Refrigeration, air conditioning and heat pumps (RAC)
- Fire Protection Systems
- Mobile air conditioning (MAC)
- High Voltage Switchgear
- F - gas solvents

The implementing regulations for these sectors have been agreed by the Commission and are expected to be published in the European Journal in March 2008.

In the RAC sector there will be four categories of certification depending on the activity being undertaken. Category I is the universal qualification and enables the holder to carry out all activities related to the checking for leaks and recovery of F - gases. Categories II and III are related to smaller systems (less than 3kg) and in the case of category III only deals with recovery. Category IV relates to leak checking only and excludes the other activities. Categories II and IV can only involve activities that do not break into the system.

To obtain certification, competence will be tested by theoretical and practical examination and the skill set required for each of the four categories is outlined in the Annex of the Regulations on Minimum Qualifications.

Member States must adapt their own training requirements by the 4th January, 2009 which may be more onerous than the minimum requirements specified by the Commission, however, mutual recognition between Member States must be based on the minimum requirements.

In view of the time required to get individuals and companies certified there is a provision for transitional arrangements for persons currently working in the industry. This will be facilitated by way of interim certification and these arrangements will expire on the 4th July 2011. Member States must notify the Commission of the intention to use interim certificates by the 4th July, 2008. The procedures for interim certification will be set down in the forthcoming national regulations (Section 6).

There is also a requirement for company certification for those companies involved in the RAC and fire sector. It will be more akin to a registration system and will involve companies providing evidence of the following:-

- Only certified staff are employed for the activities requiring certification
- Sufficient number of certified staff are available to cover the expected volume of activity
- The necessary materials (tools and procedures) are available to personnel engaged in certified activities

The national company certification body is yet to be designated and the requirements for company certification will be outlined in the forthcoming national regulations. The arrangements for company certification must be in place by the 4th July, 2009.

There are three derogations (applicable from 4th July, 2009) to the RAC requirements as follows:-

- for a maximum period of 2 years, to personnel undertaking one of the activities referred to in Article 2(1) and enrolled in a training course for the purpose of obtaining a certificate provided that they carry out such activities

under the supervision of a person holding a certificate covering the relevant activity

- to personnel undertaking brazing, soldering or welding of parts of a system or piece of equipment in the context of one of the activities referred to in Article 2(1), which hold the qualification required under national legislation to undertake such activities, provided that they are supervised by a person holding a certificate covering the relevant activity.
- to personnel undertaking recovery of fluorinated greenhouse gases from equipment covered by Directive 2002/96/EC with a fluorinated greenhouse gas charge of less than 3 kg, in premises covered by a permit in accordance with Article 6(2) of that Directive, provided that they are employed by the company holding the permit and have completed a training course on the minimum skills and knowledge corresponding to Category III as set out in the Annex to this Regulation verified by an attestation of competence issued by the permit holder.

The requirements for the fire sector are the same as the RAC sector with the exception that the provisional certificates are only valid until the 4th July, 2010 for individuals and there is only one category of certification.

For persons handling F- gases with respect to high voltage switchgear training is envisaged to be largely in-house and entities manufacturing or operating high voltage switchgear could be designated as evaluation or certification bodies or both provided they fulfil the relevant requirements. There will be no transitional arrangements for this sector which means that training/certification arrangements have to be in place by the 4th July 2009. As with the other sectors the skills sets to be evaluated by the evaluation body are contained in an Annex to the Decision. Examination will be both theoretical and practical. Similar requirements apply for persons involved in recovery of F Gases from equipment containing F Gas-based solvents.

With regard to the mobile air conditioning (MAC) sector Section 4.3 of the Regulation states that recovery of F- gases must be carried out by appropriately qualified persons. In the MAC sector appropriately qualified is taken to mean holding an attestation of competence certificate. To obtain an attestation the holder must have completed a training course the content of which is set out in Annex I of the Decision. Provisional arrangements will apply whereby persons holding an existing qualification or personnel with professional experience will be exempt until the 4th July 2010.

The training requirements applying in Ireland will be specified in the national Regulations and must be notified to the Commission by the 4th January, 2009. The Department is currently working with training providers to finalise the arrangements.

4.6 Article 6 – Reporting

Article 6 of the Regulation requires that producers, importers, and exporters of F-gases report certain activities to the European Commission annually beginning on 31st March, 2008 for activities occurring in 2007. Quantities imported or exported should include bulk shipments, including those shipped with equipment for the purpose of charging that equipment, but not quantities contained in equipment (i.e., pre-charged equipment).

Information is required on production, import/export and quantities recycled, recovered or destroyed. The reporting requirement only relates to quantities over 1 tonne and with regard to import and export only quantities imported or exported outside the European Union should be reported.

The exact requirements are outlined in the recently published EU implementing regulation (Commission Regulation EC No 1473/2007 establishing the format for the report to be submitted by producers, importers and exporters of fluorinated greenhouse gases) which can be obtained from the Department website (www.environ.ie).

The reports should be sent directly to the Commission or their agents with a copy sent to the Member State competent authority. A web based system is being developed.

4.7 Article 7 – Labelling

The labelling requirement mandates that certain products and equipment cannot be placed on the market unless they are appropriately labelled. The requirements for labelling are established in the recently published implementing regulation (EC Regulation 1494 of 2007) which stipulates that labels must contain the following information:-

- The words 'Contains fluorinated greenhouse gases covered by the Kyoto Protocol'
- The abbreviated chemical names for the fluorinated greenhouse gases contained or designed to be contained in the equipment using accepted industry nomenclature standard to the equipment or substance.
- The quantity of the fluorinated gases expressed in kilograms.
- The text "hermetically sealed" where applicable
- In the case of products and equipment which are insulated with foam blown with fluorinated greenhouse gases when placed in the market, in addition to the information requirements referred to above, the following words shall be included on a label "Foam blown with fluorinated greenhouse gases".

It should be noted that where additional F- gas is added outside the manufacturing facility, space should be provided to add the quantity added outside the manufacturing and the total quantity.

The manuals accompanying the products and equipment containing F- gases must also provide the above information.

There are further technical requirements with regard to the labels as follows:-

- The information shall stand out clearly from its background and shall be of such size and spacing as to be easily read. Where information is added to an existing label, the font size shall not be smaller than the minimum size of other information on that label.

- The entire label and its contents should remain in place and be legible throughout the entire period in which the product or equipment contains fluorinated greenhouse gas(es).
- In split equipment the label information should be on that part of the equipment which is initially charged with the refrigerant.

The products and equipment requiring labels are as follows:-

- refrigeration equipment and products which contain perfluorocarbons or preparations containing perfluorocarbons;
- refrigeration and air conditioning equipment and products (other than those contained in motor vehicles), heat pumps, fire protection systems and fire extinguishers, if the respective type of equipment or product contains hydrofluorocarbons or preparations containing hydrofluorocarbons; switchgear which contains sulphur hexafluoride or preparations containing sulphur hexafluoride; and
- all fluorinated greenhouse gas containers as defined.

Member States may make the placing on the market of products and equipment on their territory subject to the use of their official language.

The labelling provision shall apply from the 1st April, 2008 and are outlined in the recently published implementing regulation. The labelling requirements only apply to new equipment placed on the market.

The labelling provisions do not apply to containers which transport fluorinated gases but which themselves are not put on the market, nor to recovery cylinders which are either placed on the market empty, or filled from equipment already on the market with the purpose of returning the substance to a recycling facility.

4.8 Article 9 - Placing on the Market

This article prohibits certain products and equipment containing F-gases being placed on the market as contained in Annex II of the Regulation. Much of this equipment is already banned as shown below:-

Footwear containing F-gases – prohibited since the 4th July 2006

Non refillable containers – prohibited since 4th July 2007

Non-confined direct-evaporation systems containing HFC or PFC – prohibited since the 4th July 2007

Fire protection systems and fire extinguishers containing PFC – prohibited since the 4th July 2007

Tyres containing F-gases – prohibited since the 4th July 2007

Windows for domestic use containing F-gases – prohibited since the 4th July 2007

Other windows containing F-gases – prohibited from the 4th July 2008

One component foams containing F-gases (except when required to meet national safety standards) – prohibited from 4th July 2008

Novelty aerosols containing HFC – prohibited from 4th July 2009

The placing on the market prohibitions relate to placing on the EU market for the first time.

4.9 Other Provisions

There are some other provisions in the Regulation which have not been discussed in detail here. These relate to the following issues:-

Article 8 – Control of use of SF₆ and its preparations

Article 10 – Review of Regulation

Article 11 – Promotion of Alternatives

Article 12 – Committee consisting of Member States to assist with management

Article 13 – Penalties

Article 14 – More Stringent Protective Measures

Article 15 – Entry into force

Please refer to the Regulation for detail.

5. What are my Obligations?

Anyone involved in the industry should become familiar with the EC Regulation and the national implementing Regulations when enacted. However, it should be noted that many of the responsibilities of the Regulation rest with the operator and discussion is still ongoing regarding correct interpretation of exactly who is the operator.

The key to interpretation is the wording within the definition “actual power over the technical functioning” of a piece of equipment or system. This 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 powers (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.

Responsibilities of the operator include:

- To ensure that leak checking is carried out according to Article 3 by certified personnel.
- To undertake recovery obligations outlined in Article 4
- To ensure that personnel have the necessary certification according to Article 5.

Producers, importers and exporters need to comply with the reporting obligations of Article 6

Any entity placing F-gases on the market such as manufacturers, installers and wholesalers need to consider the labelling provision in Article 7. Responsibility will rest with whoever places the equipment on the market for the first time.

Failure to comply with the Regulation will be an offence and penalties associated with non conformity will be specified in the national Regulation.

6. Implementation in Ireland

The requirements of the Regulation as in all Member States are now law in Ireland and the next step is the process of the appointment of a competent authority responsible for implementation of the Regulation.

National implementing regulations will be enacted to outline in particular the penalties for non compliance and the requirements regarding certification and training in the different sectors covered by the EC Regulation.

In preparation for implementation the Department has engaged consultants to prepare a study profiling the Irish market, to examine existing inspection regimes and to examine the training needs arising out of the Regulation.

7. Frequently Asked Questions

Reporting

Question 1 If pre-charged equipment is imported into Ireland, do the F-Gases contained in this equipment have to be reported ?

Answer No. Pre-charged equipment is exempt from the reporting requirements as the reporting requirements of the Regulation (Article 6) only apply to the F Gases themselves and not to equipment containing those substances.

Question 2 (a) On the reporting forms, the introduction refers to an exemption for pre-charged equipment.

(b) How is this consistent with the placing on the market provisions of the Regulation?

(c) If pre-charged equipment can come from outside the EU, certain F-Gases may not be reported.

Answer (a) See above

(b) The placing on the market prohibitions in Article 9 only apply to a small number of products and equipment containing or whose functioning relies upon F Gases.

(c) The reporting provisions in Article 6 only apply to the F Gases themselves rather than the products and equipment containing these gases. However the Regulation will be reviewed and as stated in Article 10.2 the Commission has to publish a report by 4 July 2011 based on the experience of the application of the Regulation.

Question 3 If purchasing through an agent, does the agent or the purchaser have responsibility for reporting?

Answer The entity who actually imports the gas into the country and deals with the Customs requirements is the importer. In many cases this will be an agent.

Question 4 (a) Will there be multiple reporting requirements (i.e. to both Commission and the national competent authority)?

(b) Where does the information go and will it be protected?

(c) Are there overlaps with ODS?

Answer (a) Only one form is required to be completed if a company has an obligation to report. This form will be returned to the Commission or consultants acting on their behalf. A copy of the form will be sent to the competent authority (Article 6).

(b) The information goes to both the Commission and the competent authority and it will be considered confidential (see below).

(c) There are no overlaps with ODS as the information requested only relates to F Gases.

Question 5 Can data confidentiality be assured?

Answer The reporting form addresses confidentiality as follows: All information provided in this report will be considered strictly confidential. No company-specific information will be disclosed to the public; all company data will be aggregated into summary reports before being made available to the public.

Labelling

Question 6 Does the GWP have to be displayed on the label?

Answer No. The Global Warming Potential (GWP) does not have to be displayed on the label. Information on the GWP must be provided in the manual (Article 7).

Question 7 Do labelling requirements apply to existing equipment?

No. The labelling requirements only apply to new equipment as the definition of “placing on the market” in Article 2(g) refers to the supply or making available of products and equipment by producers or importers for the first time in the EU.

Leak-checking requirements

Question 8 For equipment already on the market, it will be difficult to determine quantities of F-gases. Does the logbook have to address existing equipment and if so, will accurate estimates of F-gases be possible?

Answer Yes the logbook does have to address existing equipment and an estimate will have to be made of the amount of refrigerant in the system. The simplest way to do this is to use data supplied by the manufacturer and many refrigeration systems, especially small ones, have a Name Plate showing the amount of refrigerant. Alternatively, there may a record of the amount of refrigerant in the documentation supplied when the system was installed.

In the absence of the above information an estimate will have to be made. To assist with this DTI/DEFRA in the UK have produced a tool which can be downloaded at <http://www.defra.gov.uk/environment/climatechange/uk/fgas/>

Question 9 A lot of small sites will be captured by the 3kg threshold, e.g. small shops, butchers. Many of these do not have service contracts in place. What will apply in these cases?

Answer Any operator of equipment over the 3 kg threshold is obligated to prevent leakage of F gases and to as soon as possible repair any detected leak (Article 3). For smaller systems (3 – 29 kg) leak checks must be carried out once a year by appropriately qualified personnel. This obligation applies from 4th July, 2007.

Question 10 How is leak-checking defined?

Answer Article 3(2) says checked for leakage means that the equipment or system is examined for leakage using direct or indirect measuring methods, focusing on those parts of the equipment or system most likely to leak.

Question 11 Devices which detect a change in pressure in equipment ie low pressure switches – are these considered leak detectors?

Answer Yes such devices would be considered leak detectors using indirect methods.

Training & Certification

Question 12 Is there a distinction between 'certified' and 'qualified' in relation to MAC f-gases recovery?

Answer The terms certified and qualified do not apply in this sector. Training for this sector is based on training attestation.

The minimum requirement for a person to be deemed appropriately qualified within the meaning of Article 4 (3) of the Regulation and therefore being allowed to carry out recovery operations on air-conditioning systems of motor vehicles containing fluorinated greenhouse gases is a training attestation that meets the standards laid down by the soon to be published Commission Regulation.

Question 13 Do 'fixed-mobile' air-conditioning units – e.g. refrigeration systems in vans and lorries, fixed fire-prevention systems on trains – come within the definition of MAC for the purposes of the Regulation and/or the Directive?

Answer No the above equipment does not come within the current scope of the Regulation. In Article 2 'stationary application or equipment' means an application or equipment which is normally not in transit during operation. However this is to be reviewed by the end of December 2008 (Article 10.1).

Question 14 How will provision that MS may put in place stricter qualifications work with the requirement that qualifications based on the minimum requirements can be 'portable' between MS? Could this result in a fast track arrangement with people able to avoid a full apprenticeship?

Answer While the Regulation provides for Member States to adapt requirements for the different sectors, qualifications from other Member States must be recognised based on the minimum requirements to be established by the Commission for that sector. Any additional criteria should not be taken into consideration for the mutual recognition of certificates issued by another Member State.

Question 15 Do the training and certification / qualification requirements apply only to the specified sector or can someone qualified in the fire move to the RAC sector for example?

Answer The training and certification requirements are different for the five categories (Refrigeration, A/C and Heat Pumps, Fire Equipment, MAC, Solvents and SF₆) dealt with in the regulation. Persons cannot move from one sector to another without acquiring the necessary training and certification.

Question 16 Does the training requirements for the RAC sector presume that those with City & Guilds 2078 will be able to continue to operate?

Answer Holders of the City & Guilds Certificate in Handling Refrigerants 2078 will be deemed to hold an interim certificate. This will be valid until the 4th July 2011 and during this interim period holders will have to undergo further training to up skill to the requirements of the soon to be published commission regulation on training and certification for the sector.

Question 17 Are there limitations on the tasks apprentices can perform during their apprenticeship training?

Answer Yes, apprentices can only carry out the activities covered by the Regulation if they are supervised by a certified person.

Question 18 What certification is required for companies that use SF₆ ?

Answer There is no company certification for this sector. However, all operators have to put in place arrangements for the proper recovery by certified personnel of fluorinated greenhouse gases to ensure their recycling, reclamation or destruction.

Operator

Question 19 What is the situation in circumstances where the operator does not legally own the equipment e.g. where a company owns the assets and another company operates the assets, albeit with the owners staff?

Answer 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 current interpretation of the Commission is that "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 powers (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.

More information on this can be obtained from the Commission's Interpretation document which is available on the Department website.

Question 20 There is a danger of repudiation of responsibility in situations where the owner does not normally undertake maintenance. This would apply, e.g. in landlord-tenant scenarios.

Answer See above

8 Further Information

Further information can be obtained from the Department website at www.environ.ie