



BRA FACT FINDER

Number 15

Control of HFC Refrigerant Sales

Introduction

The EU F-Gases Regulationsⁱ require users of HFC refrigerants, such as R-134a, R-404A and R-410A, to hold certain minimum qualifications of competency in refrigeration, safety and handling and environmental issues. Companies employing personnel using HFC refrigerants must be certified to handle those refrigerants and have the qualified personnel and the necessary equipment and procedures to carry out activities using those refrigerants. Additionally and importantly, from 4 July 2009 purchasers must hold qualification and certification requirements to be permitted to purchase supplies of those refrigerantsⁱⁱ.

What does this mean for engineers, contractors and operators?

What qualifications and certifications are needed to be able to purchase?

Do existing qualifications still apply?

What is required to be able to purchase HFC refrigerants from 4 July 2009?

The following information is provided to help those working with stationary refrigeration, air conditioning and heat-pump equipment to comply with the regulations.

Qualifications and Certificationⁱⁱⁱ

- **Operators** of stationary refrigeration and air conditioning equipment, have the responsibility to ensure that those they employ or contract to install, service and maintain, or decommission such equipment, are qualified and certificated to carry out those activities.
- **Persons** handling HFC refrigerants at all levels of stationary refrigeration and air conditioning are required to have the appropriate minimum qualifications to carry out activities using those refrigerants.
- **Companies** carrying out activities involving HFC refrigerants have the responsibility to ensure they employ sufficient personnel holding the minimum qualifications for the activities they carry out and that those personnel are provided with the necessary tools and procedures to carry out the activities correctly.

Interim (Existing) Qualifications (valid until 4 July 2011)

Craftsmen using Ozone Depleting Refrigerants, such as R-22, are required to hold City and Guilds 2078, CITB^{iv} 206710 or for OEM production, appropriate 'in-house' qualifications, all covering refrigerant safety and handling, including refrigerant recovery - important for environmental protection. These qualifications are deemed by the UK authorities to be appropriate as interim qualifications for working on static refrigeration and air conditioning systems with HFC refrigerant.

The qualifications are INTERIM to allow personnel to continue working, whilst undertaking the training to the new qualifications more specific to the requirements of the F-Gases Regulations. These interim qualifications will be valid until 4 July 2011, by which date all engineers are expected to have trained and obtained certification to the new qualifications.

Interim Certification

Persons experienced in any of the four categories listed below but not holding the accepted interim qualifications, will be issued with an 'Interim Certificate' valid until 4 July 2011. This will allow them to continue working with HFC refrigerants, whilst training for the new qualifications and certification. The interim certificate will indicate the category of activities for which that person is permitted to perform.

New F-Gas Qualifications and Certification

The Regulations^v require craftsmen to undertake more extensive training than the existing (interim) qualifications and will be based upon theory and practical examination, demonstrating knowledge of basic refrigeration technology, systems engineering and components, as well as the specific requirements of the F-Gas Regulation and the environmental issues of using HFC refrigerants.

The qualifications are set under 4 categories dependent upon the work activities to be undertaken and defines larger systems as 3kg or more (6kg or more hermetic) charge and smaller systems being below 3kg (6kg hermetic) charge.

- **Category I – (*All stationary systems*)**
for engineers working on all static systems. It allows the holder to install, service & maintain, recover and leak check systems of 3 kg (6kg for hermetically sealed systems without mechanical joints) or more charge and by default allows working on systems below 3 kg (6kg for hermetically sealed systems without mechanical joints)
- **Category II – (*Small stationary systems only & leak checking large systems*)**
for those working solely on systems below 3kg (6kg for hermetically sealed systems without mechanical joints) charge. It also allows the engineer to leak check systems of 3 kg (6kg hermetic) or more charge, as long it does not involve breaking into the circuit
- **Category III – (*Recovery from small systems Only*)**
for those only involved in recovery from systems below 3kg (6kg for hermetically sealed systems without mechanical joints) charge. E.g. domestic refrigerator disposal
- **Category IV – (*Leak checking Only*)**
for personnel carrying out leak checking only on all systems. For systems of 3 kg or more (6kg or more for hermetically sealed systems without mechanical joints) charge - leak checking not involving breaking into the circuit

The Category I and II qualifications are primarily for refrigeration craftsmen using HFC refrigerants and most technicians will require the Category I certification, allowing them to work on all stationary systems.

Present training and qualifications organisations will provide for the new qualifications: City and Guilds 2079 or CITB J11 – J14 are presently being introduced and it is advisable that the new qualifications are obtained as soon as possible.

Company Certification and Registration

The Regulations require companies working with HFC refrigerants to hold formal company certification.

To obtain certification a company must meet the requirements of:

1. Employment of correctly qualified personnel, sufficient for the expected volume of activities for which they are certified (see Categories I to IV above)
2. Show proof that the necessary tools and procedures are available for those certified personnel to carry out those activities correctly.

The certificate will indicate the activities which the company is allowed to perform under the certification.

Control of Sales – from 4 July 2009

From 4th July 2009, the Regulation introduces a control on the purchase of HFC refrigerants, such as R-134a, R-404A, R-410A etc. Purchase will only be permitted by companies or persons holding certification. Suppliers of refrigerants will want to ensure they only supply to certified purchasers and users.

This does not mean that a qualified craftsman within a company must personally collect, or take delivery of the HFC refrigerant. It does mean that a company taking delivery must hold a company certification, confirming it employs qualified personnel and that only personnel with the correct category of qualification will use the refrigerant. In the main it will be company certification that permits purchase of HFC refrigerant by a company representative but only a qualified craftsman can use the refrigerant. In the case of a direct purchase by a qualified engineer (e.g. a self employed person) either personal or company certification would provide the required permit to purchase HFC refrigerant. In the case of personal qualifications, only Categories I and II certificated craftsmen would be permitted to directly purchase HFC refrigerant as a permitted user.

Suppliers

Refrigerant Suppliers are not formally responsible for checking a purchaser's certification, but Suppliers will want to check such certification on their own behalf, to be sure they only supply to authorised users. Therefore, it must be expected that a supplier will request evidence of company certification, or an engineer's certification, from 4th July 2009 and most likely ahead of that date.

Suppliers will want certification information in place to ensure continuity of business when the control takes effect, as they do not have the resources to check an influx of information from purchasers on the day the control comes into force.

Remember

It is in the best interest of HFC refrigerant purchasers to ensure they have the appropriate certification in place as soon as is possible and to lodge that information of company certification, or personal certification with their refrigerant supplier/s. The 4 July 2009 may be too late!

By 4 July 2011 all craftsmen must have the new qualifications to allow use of HFCs and effectively purchase them. With the need for all persons to undertake the new training, availability of training places will come under pressure.

There is less than one year to the introduction of supply control and less than 3 years for all UK craftsmen to train to the new qualifications, so do not delay this training.

Some suppliers may already be requesting evidence of qualification certification, based upon the ODS Qualifications Regulations^{vi}, to ensure they have systems in place for handling and checking authority to purchase.

Notes

- ⁱ REGULATION (EC) No 842/2006 Regulation on Fluorinated Greenhouse Gases
- ⁱⁱ REGULATION (EC) No 842/2006 Article 5
- ⁱⁱⁱ S.I. The Fluorinated Greenhouse Gases Regulations 2009
- ^{iv} Construction Industry Training Board
- ^v REGULATION (EC) No 303/2008 Minimum requirements for certification of companies and personnel
- ^{vi} S.I. 1510 The Ozone Depleting Substances (Qualifications) Regulations 2006

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