INFORMATION BULLETIN

THE COOLINK 2010 F GAS COMPLIANCE PACKAGE

1. Introduction

Our planet is surrounded by a blanket of gases which include a rising level of CO2 that keeps its surfaces warm and able to sustain life. As we continue to burn fossil fuel and emit powerful man made fluorinated greenhouse gases this blanket is getting thicker. As a result of this our climate is changing.

Climate change is the greatest environmental challenge facing the world today. Rising global temperatures will bring changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather events.

The main objective of the F Gas Regulation (EC842/2006) is to reduce emissions of fluorinated greenhouse gases covered by the Kyoto Protocol. The regulation addresses containment, use, recovery, destruction, reporting, training and labelling.

HydroFluoroCarbon (HFC) refrigerants including R134A, R404A, R407C, R410A, R413A (M049), R417A (M059), R422D (M029) and R507 are one group of fluorinated greenhouse gases covered by this legislation.

The HydroChloroFluoroCarbon (HCFC) refrigerant R22, NH3 and C02 are not covered by the legislation.

The direct impact of refrigerants is measured by Global Warming Potential (GWP). This expresses the climatic warming potential of the refrigerant relative to that of carbon dioxide.

2. The Coolink F Gas Compliance Package.

The Coolink F Gas Compliance Package has been introduced to make our customers aware of the regulation, clarify the key points and provide impartial advice and assistance on the most cost effective ways to comply with it.

An important part of the package is to carry out a site survey to identify which systems are covered by the regulation and help establish a system / site F Gas compliance strategy. Also included is a log book with system details, refrigerant usage, leak detection and training records. Labels for each system are also provided.

3.0 Responsibilities.

The operator has the legal responsibility to comply with the majority of F Gas Regulations. The operator is the owner / manager of the plant who has actual power over the technical functioning of the equipment, responsibility for decision making and full unlimited access to the plant.

If the owner / manager of the plant has a comprehensive maintenace contract with a third party the owner / manager is still the operator. Responsibility can only be transferred if a contract with an explicit clause related to F Gas is put in place.

4.0 Key Points of the Regulation.

Article 3 – Containment.

3a. Leakage (Valid from 4th July 2007).

The operator must use all measures which are technically feasible and do not entail disproportionate cost to prevent leakage of HFC refrigerants and as soon as possible repair any detected leakage.

3b. Leakage Inspection (Valid from 4th July 2010).

The operator must ensure that based on the refrigerant charge, systems are checked for leakage by certified personnel to the following schedule.

3kg charge and above – check at least once every 12 months
30kg charge and above – check at least once every 6 months
300kg charge and above – check at least once every 3 months (see 3d)

Hermetically sealed systems which are labelled as such and contain less than 6kg of refrigerant are exempt.

If a properly functioning appropriate fixed leak detection system is installed the frequency of the checks required for systems with 30kg or more of refrigerant can be halved.

3c. Re-Checking of Repaired Leaks (Valid from 4th July 2007).

The operator must ensure that if a leak has been repaired it must be checked again within 1 month to confirm that the repair was effective.

3d. Permanent Leak Detection (Valid from 4th July 2007).

Operators of equipment containing 300kg of refrigerant or more must install permanent leak detection systems.
The system must be checked at least every twelve months to ensure it is functioning properly.

3e. Record Keeping (Valid from 4th July 2007).
The operator of equipment containing 3kg or more of HFC refrigerant will need to maintain the following records:-

- Quantity and type of refrigerant installed.
- Any quantities added or recovered during maintenance.
- Servicing and final disposal.
- Leak checks and actions taken.
- Name of the service company, the engineer / technician who performed the servicing and maintenance.
- Dates and results of inspections.

These records have to be made available to the competent authority upon request.

Article 4 – Recovery (Valid from 4th July 2007).
If refrigeant has to be removed from a system to gain access for service, repair or during system decommissioning at the end of its life the operator is responsible for putting in place arrangements for the proper recovery by certified personnel, who comply with the training and certification requirements of fluorinated greehouse gases.

After recovery depending on the circumstances and its condition the refrigerant can be reused or sent for reclamation or destruction. It should be noted that recovered refrigerant is classified and must be handled as hazardous waste.

Article 5 – Training & Certification (Valid from 4th July 2007).

Personnel Certification.
The operator has an obligation to ensure that both its own staff and any service provider they engage to handle refrigerants or work on their systems have the required training qualifications.

City & Guilds 2078 or CITB J01 refrigerant handling qualification meets the current minimum legal requirements.

City & Guilds 2079 or CITB J11/12/13/14 are the new Level 2 qualification and by 4th July 2011 it will be mandatory for all operatives to hold this updated qualification.

City & Guilds 2079 or CITB J11/12/13/14.
There are 4 different versions of the new qualification. Most refrigeration engineers will require Category 1 certification and it is anticipated that a 3 day course will be required to achieve this level of qualification.

Category 1: Covers activities in all 4 categories and includes service, maintenance, installation, commissioning and leak detection.

Category 2: Covers activities on equipment with a charge of less than 3kg or 6kg on systems that are hermetically sealed.

Category 3: Covers refrigerant recovery on systems containing less than 3kg of HFC refrigerant or 6kg on systems that are hermetically sealed.

Category 4: Covers leak detection.

Each qualification will have a practical and theoretical assessment.

Practical assessment includes, depending on the category brazing, pressure testing, refrigerant charging, leak detection, connection and disconnection of gauges and refrigerant recovery.

Theorectical assessment includes, depending on the category basic thermodynamics, refrigeration cycle, identifying condition and state of refrigerants, determining operating conditions and efficiency, monitoring performance for indication of leakage, understanding environmental impact of HFS refrigerants, record keeping requirements, key components and associated risk of leakage.

Company Certification.
Any company that carries out installation, maintenance or servicing of refrigeration or air conditioning systems that contain or are designed to contain F Gas rerigerants must hold an interim or full company certificate. This includes Operators who have their own staff who could be required to add refrigerant to a system or do any work on the system that entails opening the system up.

To apply for certification you need to contact either Refcom, Bureau Veritas or Quidos.

An Operator does not need certification to:-

1. Order and take delivery of HFC rerigerants.
2. Monitor the performance of the system and leak test the system using a hand held sniffer type leak detection or a leak detector spray or solution.

It is the Operators responsibility to ensure that the company thay engage to do the work and handle the HFC refrigerant does have the necessary certification.

Interim Certification.
To obtain interim certification the company must have personnel with City & Guilds 2078 or CITB J01 refrigerant handling qualifications. Interim certificates are only valid until 4th July 2011 and after this date a full company certificate will be required.

Full Company Certification.
To obtain full company certification the company must employ at least one person who has the new City & Guilds 2079-11 or CITB J11/12 assessments as detailed above under Personnel Certification category 1 or 2.

Article 6 – Reporting (Valid from 4th July 2007)
This article introduces an obligation for importers or exporters of more than 1 ton of fluorinated greehouse gases per year to report quantities to the Commission.

Article 7 – Labelling (Valid from 4th April 2008)
The equipment manufacturer or system installer has the responsibility to ensure that both the equipment / system and the instruction manuals are labelled to the label regulation requirement.

The label needs to be in a standard format and indicate the quantity and type of HFC refrigerant contained and state that the product or equipment 'Contains fluorinated greehouse gases covered by the Kyoto Protocol'.

This regulation only applies to new equipment / installations although it is recommended that existing equipment and installations are also labelled in a similar way.

5. Summary.

The main objective of the F Gas Regulation (EC842/2006) is to reduce emissions of fluorinated greehouse gases covered by the Kyoto Protocol.

The Regulation addresses containment, use, recovery, destruction, reporting, training and labelling.

The operator who is the owner / manager of the plant / equipment has the legal responsibility to comply with the majority of F Gas Regulations.

A summary of the Operators responsibilities are as follows.

1. Prevent leakages and ensure leaks are repaired as soon as possible.
2. Introduce a leak inspection programme in accordance with the system charge.
3. Re-test leaks within 1 month of repair.
4. When necessary install a fixed leak detection system.
5. Maintain compliant site / system records.
6. Put in place procedure for refrigerant recovery by certified personnel
7. Ensure Company registered and any external companies used are also registered and personnel working on-site have the correct training qualifications.
8. Correct labelling of all installed equipment / systems.

6. Conclusion.

Coolink Ltd fully support the F Gas Regulation and believe that by reducing HCFC & HFC refrigerant emissions and improving plant efficiency our customers will not only help protect the environment they will also benefit by controlling their operating costs.

Whilst the Operator has the legal responsibility to comply with most of the F Gas Regulations Coolink fully accepts that it has an incumbent obligation to support its customers in all matters relating to the Regulation.

The Coolink F Gas Compliance Package provides our present and future customers with impartial advice and support on the most cost effective ways of complying with the F Gas Regulation.

For further information on any of the issues covered or to arrange a site visit please do not hesitate to contact the undersigned.

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