

Commission's guidance and interpretation paper on certain issues arising from Regulation (EC) 842/2006 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 equipment or system, and to have checks (e.g. checks for leakage) 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 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.

2. Definition of "preparations"

Article 2 (5) defines "preparations" as following: "*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. Part 2 of Annex I defines the GWP of a preparation as the sum of the weight fractions of the individual constituents multiplied by their GWP.

Industry has raised two types of issues:

- The scope of the concept of “preparation”, and in particular whether a solid matrix and F-gas molecules enclosed in the matrix can be considered as a single “mixture” (e.g. shoes partly made of HFC blown polyurethane foams, window frames insulated with HFC blown foams);
- The substances that must be taken into account in a mixture for the purpose of calculating its GWP and check whether it is a “preparation” (e.g. in a “one component foam” can).

The objective of Regulation 842/2006 as defined in Article 1 is to “*contain, prevent and thereby reduce emissions of the fluorinated greenhouse gases covered by the Kyoto Protocol.*” As a consequence, it sets out a range of measures mainly intended to reduce emissions from “*products and equipment containing those gases*”, either by improving containment and recovery; or by prohibiting the placing of the market of certain very emissive products. 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 will not apply if the overall climate impact (GWP) of the emission of such mixture is below 150.

The concepts of “mixture” and “preparation” have to be interpreted in such a way, otherwise any object containing F-gas could be considered a mixture and subsequently a preparation of low GWP. In particular, for the products listed in Annex II, it could be relatively easy to define a sub-assembly of the product that would include the F-gas, and consider it as a preparation having a GWP below 150 and therefore excluding the whole product from the scope of Article 9. This would be a circumvention of the Regulation, and would also contradict the interpretation of the concept of “preparation” in the context of other pieces of the EU chemicals legislation, notably Directive 1999/45/EC “on the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, labelling and packaging of dangerous preparations.”

2.1 Application to footwear or windows into which F-gas blown polyurethane foams have been incorporated

The question raised by stakeholders is whether these products, in which free molecules of HFC blowing agent are present, have to be considered as falling under the scope of Annex II.

Should the plastic polyurethane and the free HFC molecules be considered together as a mixture, its GWP would be less than 150, and the mixture would not qualify as a “preparation” and therefore, not fall under the scope of the Regulation.

The solid plastic matrix and the molecules of HFC enclosed in the matrix are not considered as a single mixture for which the GWP would be calculated, since the plastic cannot be released into the atmosphere together with the F-gases.

However, the fact that a window frame (or a shoe) is partly made of F-gas blown foam (and in which F-gas molecules are therefore present) does not as such lead the ban on windows (or footwear) containing or whose functioning relies upon F-gases to apply to

this object. In the context of Regulation 842/2006, “containing fluorinated greenhouse gas-blown foams” does not imply “containing fluorinated greenhouse gases”.

Currently, the Regulation does not control the use and placing on the market of foams (with the exception of one component foams), but requires the Commission to “*assess the need for Community standards relating to the control of emissions of fluorinated greenhouse gases from products and equipment, in particular as regards foam*”, by 4 July 2011. This assessment could result for instance in placing on the market restrictions on certain products and equipment partly made of F-gas blown foams, based on a case-by-case analysis of the potential for emission reductions, costs, availability and suitability of alternatives. No such analysis has not been carried out yet. Therefore, considering window frames or shoes partly made with HFC blown foams as banned by the Regulation, whereas other products partly made of HFC blown foams (e.g. appliances, furniture) are not, would not be the outcome of such an analysis, but of the coincidence that windows and shoes are mentioned in Annex II for reasons which have no relation to the foam issue. Therefore, it would be discriminatory and contrary to the intention of the Regulation.

As regards windows, the ban in Annex II was aimed to target those in which an F-gas is used as insulation medium between the glass panes. As regards shoes, the intention was to ban those made more springy with little pockets containing F-gases (notably SF₆) inside the shoe sole. Shoes and windows partly made of HFC blown polyurethane foams do not fall under the scope of Annex II, unless they fall under these categories.

If placing on the market restrictions on products and equipment partly made of F-gas blown foams had to be adopted in the future, an explicit reference to F-gas blown foams would need to be introduced in Annex II.

2.2 Application to one component foams (OCF)

Can-dispensed polyurethane OCF is used in order to mount doors and windows and to fill and insulate different kinds of open joints and crevices. The question raised by stakeholders is whether all the constituents of the can should be taken into consideration to determine the mixture to be considered for the purpose of Article 9.

The rationale behind the ban on F-gas-based OCF is the fact that the F-gas is used as a propelling agent which is entirely released into the atmosphere when the can is used. OCF products are therefore very emissive applications. The purpose of the propelling agent is to eject the other constituents of the mixture from the can, so that they can form the solid foam in the appropriate locations. In the light of the abovementioned interpretation of the definition of “preparation”, according to which only the constituents expected to be released into the atmosphere under normal conditions of use, and fulfilling the same function as a single F-gas substance would do, have to be taken into consideration, only the propelling or blowing part of the mixture in the can has to be taken into account. If the GWP of this propelling/blowing mixture is 150 or more, the OCF falls under the scope of Annex II.

Should an F-gas propelling/blowing mixture with a GWP of 150 or more be indispensable for the OCF to meet national safety standards (in particular fire protection standards), the exemption foreseen by Annex II could apply.

2.3 Other situations

The application of this interpretation to other situations can be considered. For instance, in the case of refrigerant systems, the lubricating agent contained in the circuit should not be taken into consideration when defining the relevant mixture.

2.4 Mixtures of fluorinated greenhouse gases and ozone depleting substances

A large variety of refrigerants are composed of mixtures of hydrochlorofluorocarbons (HCFCs) with hydrofluorocarbons (HFCs) and/or perfluorocarbons (PFCs) in various combinations and compositions. Such refrigerants include R-401A/B/C, R-402A/B, R-403A, R-405A, R-408A, R-411A/B/C, R-412A, R-415A/B, R-416A, R-418A, R-420A, R-509A. An important question raised by stakeholders was whether such mixtures should be considered as **preparations** covered by **Regulation 842/2006**.

1. HCFCs whether alone or in a mixture are **substances controlled under the Ozone Regulation** (i.e. Regulation (EC) No 1005/2009, which repealed Regulation (EC) No 2037/2000 as from 1st January 2010): see its Article 3 pt 9 and Annex I, Group VIII. The use of HCFCs as (virgin) refrigerants is prohibited as of 1 January 2010 whereas a complete use ban applies as of 1 January 2015.
2. **Fluorinated greenhouse gases** covered by **Regulation (EC) No 842/2006** *"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"* [now Regulation (EC) No 1005/2009].
3. Preparations means *"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.* [Article 2(5) of Regulation 842/2006].

On the basis of (3) a mixture composed of at least one fluorinated greenhouse gas, would be considered as a preparation in the context of Regulation (EC) No 842/2006, unless the total GWP is less than 150. Whilst (2) excludes substances controlled under the Ozone Regulation as such from the scope of the definition of fluorinated greenhouse gases, the inclusion of substances controlled under the Ozone Regulation **in a mixture with at least one fluorinated greenhouse gas**, should neither exclude the substance from the scope of the Ozone Regulation (1) nor exclude the mixture from the definition of preparation (3).

To test whether the exemption on the basis of the total GWP applies all constituents in the mixture should be accounted. Part 2 of Annex I (Regulation (EC) No 842/2006) defines the GWP of a preparation as the sum of the weight fractions of the individual constituents multiplied by their GWP. According to footnote 3, *"for the calculation of the GWP of non-fluorinated greenhouse gases in preparations, the values published in the First IPCC Assessment shall apply"*. This list covers the GWP values for CO₂, methane and N₂O as well as of the main substances controlled under the Ozone Regulation (and Montreal Protocol): common CFCs, common HCFCs, carbon tetrachloride, halon-1301 and 1,1,1-trichloroethane.

For example, R-420A is a mixture of HFC-134a (88%) and HCFC-142b (12%). Since it is a mixture of two substances, at least one of which is a fluorinated greenhouse gas it should be considered as a preparation covered by Regulation (EC) No 842/2006 (its total GWP was calculated on the basis of the sum of the weight fractions of its individual constituents multiplied by their GWP which for HFC-134a listed in Annex I whereas for

HCFC-142b is listed in Table 2.8 of the first IPCC Assessment Report, i.e. $0.88 \times 1300 + 0.12 \times 1600 = 1336 > 150$) whilst HCFC-142b would still be considered as controlled substance covered by the Ozone Regulation therefore subject to all its provisions.

2.5 Polyols blends with HFCs

A polyol blend containing HFCs should be considered as a “product” and not as a “preparation” (as defined in Article 2, point 5 of the F-Gas Regulation). This would be consistent with the approach taken for polyol/HCFCs blends, which are considered as “products” and not as “mixtures” under the Ozone Regulation and for the purposes of the Montreal Protocol.

3. Identification of applications and calculation of their charge

The term “application”, which is not defined in the Regulation, is mentioned in particular in Article 3, which provides for regular leakage checking for systems in operation, and differentiates requirements on the basis of the quantities of F-gases contained in the particular applications subject to that Article. It is therefore necessary to be able to determine precisely what the applications are in any circumstances and subsequently, be able to determine the quantity of F-gases contained in each of them.

This issue should be analysed in the light of the objective of the Regulation as set out in Article 1 (“*contain, prevent and thereby reduce emissions of the fluorinated greenhouse gases covered by the Kyoto Protocol*”). On that basis, it is clear that the main idea behind Article 3 (2), (3) and (6) is that the larger the quantity of F-gases contained in the application, the greater the potential for leakage and the tighter the checks should be.

Therefore, to identify an application, the criterion should be the technical structure of the system, and not its location or function. An application should be understood as a set of components and pipes which form one continuous structure through which F-gases can flow. If a molecule of F-gas can flow through the structure from one location to another, it means that these two locations are parts of one single application.

In regard to refrigeration, air conditioning and heat pump equipment, this means that even if two disconnected refrigeration circuits are used for the same purpose (e.g. to maintain a low temperature in a cold store or warehouse), these systems have to be regarded as two separate applications.

In regard to fire protection system this means that if two or more F-Gas interconnected extinguishant containers are installed to a specific fire risk in a defined space, these containers have to be regarded as a single application.

4. Prohibition from placing on the market of products and equipment – Article 9, Paragraph 1 and 2, and Annex II

4.1. Non-refillable containers: manufacturing and filling

According to Article 9, paragraph 1, “*the placing on the market of products and equipment containing, or whose functions relies upon, fluorinated gases, as listed in*”

Annex II shall be prohibited as specified in that Annex" (i.e. by 4 July 2007 for non refillable containers filled in with F-gases according to Annex II).

However, paragraph 2 further specifies that this *"shall not apply to products and equipment shown to be manufactured before the date of entry into force of the relevant placing on the market prohibition"*.

In regard to "non-refillable containers", one should distinguish between:

(i) Those containers which are manufactured before 4 July 2007 and already pre-filled with F-gases, in which case they can still be placed on the market after 4 July 2007, in accordance with Article 9(2);

(ii) Those containers manufactured before 4 July 2007 but left empty and which could be filled in with F-gases after 4 July 2007.

According to information received by some stakeholders, it appears that, while the situation is clear and unambiguous as regards containers manufactured and filled in before 4 July 2007, this is less the case as regards containers manufactured before 4 July 2007 but to be possibly filled in with F-gases after 4 July 2007. In this later case, some are of the view that the Regulation should be interpreted as allowing the placing on the market of non-refillable containers manufactured before 4 July 2007 but filled in after arguing that Article 9(2) only relates to the product and equipment, in this case the container itself, rather than to the product and equipment together with the gas, meaning that an empty non-refillable container could also enjoy the benefit of Article 9(2) and thereby be exempted from the "placing on the market" prohibition. In other words, the Regulation would not, in their view, prevent the placing on the market of empty containers and the subsequent use of F-gases for filling in those containers which have been manufactured before 4 July 2007. Hence the attractive idea of stockpiling such empty non-refillable containers, which would obviously run against the spirit and objective of the Regulation.

Considering the above, and in order to avoid both divergent/erroneous interpretations and implementation running against the objective of the Regulation, the Commission services consider that it would be important to reach a common understanding on the issue at EU level. In the Commission services' view, Article 9 covers not only products and equipment containing F-gases but also those "whose functioning relies upon F-gases".

The exemption provided for in Article 9(2) should, by nature, be interpreted narrowly and so that it cannot be used as a way to circumvent the spirit of the Regulation and unduly affect its objective and level of environmental protection. The Commission services are consequently of the view that the exemption to the "placing on the market" prohibition only applies to non-refillable containers manufactured before 4 July 2007 and filled in with F-gases before that date. While not explicitly addressed under the Regulation, this would imply that the use of F-gases to fill in non-refillable containers after 4 July 2007 should not be allowed.

Any other interpretation, and in particular the interpretation according to which empty non-refillable containers could also benefit from the exemption, could otherwise create a loophole in the system that would put at risk its effectiveness by delaying its proper implementation (stockpiling of such containers manufactured before 4 July 2007).

4.2. Non-refillable containers and particular refill canisters for mobile air conditioning systems (MACs)

The objective of Regulation (EC) No 842/2006 on certain fluorinated greenhouse gases is to contain, prevent and thereby reduce emissions of the fluorinated greenhouse gases covered by the Kyoto Protocol.

Non-refillable containers are designed to be disposed after use, which means that any fluorinated gas left in such containers will eventually be emitted to the atmosphere. For this reason and on the basis of Article 9(1) and 9(2) and Annex II of Regulation (EC) 842/2006, **the placing on the market of non-refillable containers is prohibited as of 4 July 2007**, unless shown that these have been manufactured before that date.

A product would fall within the scope of this prohibition if covered by the definition of "non-refillable container". A **non-refillable container**, as defined in Article 2 point 13, is a **container** *that is designed not to be refilled and is used in the servicing, maintenance or filling of refrigeration, air-conditioning or heat pump equipment, fire protection systems or high-voltage switchgear, or to store or transport fluorinated greenhouse gas based solvents*. Under Article 2 point 12 a **container** is a *product which is primarily designed for transporting and storing fluorinated greenhouse gases*. Qualifying as a "container" would thus be the first condition that a product must fulfil in order to assess whether its placing on the market would be prohibited.

The definition of "container" focuses on the primary designed function of a product, that is to transport and store fluorinated greenhouse gases. This implies that the product-container was primarily designed as an intermediate medium, and that the contained fluorinated greenhouse gas has an intended end-use in a system other than the product in which it is contained. The word "primarily" suggests that the fluorinated greenhouse gas may also have additional uses in the product-container itself. Thus, a product, primarily designed to transfer the contained fluorinated greenhouse gas to another system for an intended use would be considered as a "container" regardless of any additional function of the fluorinated greenhouse gas in the product itself.

Having determined that a particular product is indeed a "container" the next step would be to determine whether the container is designed not to be refilled. Furthermore, the definition of "non-refillable container" goes a step further by specifying the particular uses in which the utilisation of the contained fluorinated greenhouse gases would make the relevant "container" be classified as a "non-refillable container". If the fluorinated greenhouse gases contained in the "container" are used either in the servicing, maintenance or filling of refrigeration, air-conditioning or heat pump equipment, fire protection systems or high-voltage switchgear, or as fluorinated greenhouse gas based solvents, then the product would be considered as a "non-refillable container". It should be noted that since Article 2 point 13 does not distinguish between stationary or mobile applications, both stationary and mobile refrigeration and air-conditioning equipment should be considered to be covered by the definition.

On the basis of the above interpretation, products which are designed in a way that the fluorinated greenhouse gas can be transferred to mobile air-conditioning circuits to top-up or service the system, would be considered as "containers" regardless of whether the fluorinated greenhouse gas is also used as a propellant to drive any other substances out of the can. Furthermore, if they are also designed not to be refilled, and since the end-use of the fluorinated greenhouse gases is one of those covered by the Article 2 point 13, the products would be considered as "non-refillable containers", the placing on the market of

which is prohibited as of 4 July 2007, unless shown that these have been manufactured before that date.

4.3. Novelty aerosols and gas horns

The F-Gas Regulation defines novelty aerosols as “*aerosols generators marketed and intended for sale to the general public for entertainment and decorative purposes as listed by Directive EC/94/48*” (Article 2, pt 19).

The placing on the market of novelty aerosols containing HFCs is prohibited as of 04/07/2009, except if it can be shown that they have been manufactured before this date (Article 9, Paragraphs 1 and 2 and Annex II). The rationale of this ban is to avoid emissions of these potent greenhouse gases where the applications are not necessary.

The Annex to Directive 94/48/EC – from which the above-mentioned definition is taken word by word - provided a non-exhaustive list of aerosols considered (on the basis of this definition) as novelty aerosols, including silly string, artificial snow, decorative flakes and foams and horns for parties. As of 1st June 2009, Directive 94/48/EC is replaced by entry 40 of Annex XVII to REACH Regulation (EC) No 1907/2006. Entry 40 of Annex XVII prohibits the placing on the market of novelty aerosols for supply to the general public for entertainment and decorative purposes if they contain substances classified as flammable, highly flammable or extremely flammable.

It should be noted that the abovementioned definition of a "novelty aerosol" is based on its intended use as well as on its marketing mode and not upon its technical design or characteristics: while the technical design or characteristics for most aerosol dispensers can typically correspond to a single intended use and the equivalent marketing mode, in practice this is not always the case.

Portable "gas horns" in an aerosol dispenser format, for example, are designed to generate loud noise. This function can be utilised in different contexts and the products can be marketed accordingly, either for safety uses like industrial and personal safety, wilderness emergencies, fire & rescue and watercraft safety (i.e. not as novelty aerosols), but also for entertainment uses: e.g. in parties, by supporters in sports events, in demonstrations (i.e. as novelty aerosols).

For such products, the enforcement of the relevant prohibition should take into account the intended use and marketing mode. In the Commission services' view, the promotion of aerosols containing HFCs as horns for sports events or for other entertainment uses and their offer for sale to the general public, should not be allowed except if it can be shown that the products have been manufactured before 04/07/09.

4.4 Novelty aerosols using HFCs mixtures

Novelty aerosols are “*aerosols generators marketed and intended for sale to the general public for entertainment and decorative purposes as listed by Directive EC/94/48*” (Article 2, pt 19 of Regulation (EC) No 842/2006). They include applications such as silly string, artificial snow and decorative paints requiring non-flammable propellants as they might be used close to a source of ignition.

Under Regulation (EC) No 842/2006, the placing on the market of novelty aerosols using HFCs as a propellant is prohibited as of 04/07/2009, except if it can be shown that they have been manufactured before this date (Article 9 and Annex II).

As far as HFC mixtures are concerned, however, the ban on use of novelty aerosols should apply only if the total GWP of the mixture is equal or above 150. This approach is in line with the definition of “preparation” in Article 2, pt 5 of the Regulation and take account of the fact that HFCs are considered as a subgroup of fluorinated gases (see the wording of Article 9(1): “*products and equipment containing or whose functioning relies upon **fluorinated greenhouse gases**, as listed in Annex II shall be prohibited*”, as well as the heading of the table in Annex II). In other terms, HFC mixtures with a total GWP less than 150 are out of the scope of the Regulation and are consequently not covered by the prohibition of Article 9.

4.5 Servicing of fire protection systems with PFCs

On the basis of Article 9.1 of the F-Gas Regulation and Annex II, the placing on the market of fire protection systems containing PFCs is prohibited as of 4 July 2007. This prohibition, however, does not cover the servicing with PFCs of fire protection systems placed on the market before 4 July 2007.

5. Application of labelling obligations

5.1. Containers

Article 7 does not require the labelling of all types of products and equipment listed in Article 7(2), but makes their placing on the market subject to prior labelling. Therefore containers not placed on the market are not subject to the labelling provisions of Article 7 of Regulation (EC) No 842/2006 and implementing acts.

A case-by-case analysis is necessary in order to assess whether a container has to be labelled in accordance with Article 7, since the way in which the definition of “placing on the market” applies very much depends on the specific circumstances. The following examples are aimed at illustrating the variety of situations but do not cover all of them.

- When a new container is used by an F-gas producer or importer to transport F-gases to a downstream user or distributor, and if the container is made available together with the substance, it is subject to the labelling requirements set out in Article 7 of Regulation (EC) No 842/2006.
- Chemicals producers or importers often use large containers such as ISO tanks to transport F-gases intended for sale to distributors or end-users, the container being eventually returned to them and its ownership remains with them. In such cases, the substance is placed on the market but not the container, therefore the container is not subject to the labelling requirements set out in Article 7 of Regulation (EC) No 842/2006.
- Distributors often own “recovery cylinders”, which are provided to equipment end-users or maintenance/recovery companies in order to collect used F-gases from products and equipment. Distributors provide recovery cylinders empty and receive them back full. They subsequently send off the filled cylinders for the recycling, reclamation or destruction of their content, and eventually receive them back. In such situations, the cylinder is not placed on the market; therefore it is not subject to the labelling requirements as set out in Article 7 of Regulation (EC) No 842/2006.

Although containers not placed on the market are not subject to the labelling requirements as set out in Article 7 of Regulation (EC) No 842/2006, the Commission services encourage the development of voluntary labelling schemes at national level so that personnel handling containers when they contain F-gases are aware of the fact that such gases are contained and therefore releases must be avoided. In particular, for recovery cylinders voluntary labelling schemes at national level, would inform personnel that the cylinder must be directed to the appropriate F-gas recycling/reclamation/destruction facility. The information contained on such a label (indications on the substances contained in the cylinder and if possible their quantities) could also be useful to the recovery/reclamation/destruction companies.

5.2. Refrigeration and air conditioning in modes of transport

According to Article 7(2) of Regulation (EC) No 842/2006, refrigeration and air-conditioning products and equipment (other than those contained in motor vehicles) placed on the market must be labelled as further specified by Commission Regulation (EC) No 1494/2007.

Although "motor vehicles" are not specified in the particular article, it could be considered that motor vehicles are those referred to in Directive 70/156/EEC as specified in other references to "motor vehicles" in Article 10(1) of the same Regulation.

Article 1 of Directive 70/156/EEC defines "motor vehicles" as any motor vehicle intended for use on the road, with or without bodywork, having at least four wheels and a maximum design speed exceeding 25 km/h, and its trailers, with the exception of vehicles which run on rails and of agricultural tractors and machinery.

6. Application of containment and labelling obligations to refrigeration containing insulation foam blown with fluorinated greenhouse gases

Article 3 (containment) and Article 7 (labelling) refer inter alia to refrigeration equipment containing fluorinated greenhouse gases.

The intent of these provisions was to cover refrigeration equipment with fluorinated greenhouse gases contained in their cooling circuits as refrigerants, as this is a major source of emissions. Although refrigeration equipment may also contain foam blown with fluorinated greenhouse gases, "containing fluorinated greenhouse gas-blown foams", in the context of those two articles, should be interpreted narrowly as covering only those refrigeration products and equipment, which contain the gas as a refrigerant in their cooling circuits.

Therefore, the labelling requirements of Article 7 would not cover refrigeration products and equipment which do not contain or whose functioning does not rely on fluorinated greenhouse gases contained in the cooling circuit.

Nevertheless, on the basis of a review on the desirability of including additional environmental information on the labels to be used on those products and equipment which fall within the scope of Article (7) (pursuant to Article 7(3)), it was concluded that for equipment falling under the scope of the labelling provisions, an additional

indication, on the label, of the presence of fluorinated greenhouse gas molecules in foams contained in the equipment could promote the potential recovery of fluorinated greenhouse gases from such foams. As a result, the Commission Regulation establishing the form of labels and additional labelling requirements as regards products and equipment containing certain fluorinated greenhouse gases provides for the inclusion of additional information indicating whether refrigeration equipment covered by the Regulation (i.e. containing fluorinated greenhouse gases in the refrigeration circuit) have been insulated with foam blown with fluorinated greenhouse gases.

7. Scope of the Regulation in relation to application containing less than 3 kg

At the very first meeting with Member States, the issue of whether and to what extent Articles 3, 4 and 5 would also apply to applications of less than 3kg was raised and gave rise to preliminary conclusions. At the time, the Commission insisted on the need to take a pragmatic and proportionate approach, in line with the Regulation.

Considering the importance of the issue, the Commission would wish to reiterate its view which is based on the following principles:

7.1 Containment (Article 3):

Paragraph 1 of Article 3 does not contain any threshold but rather lays down an obligation of a general nature to prevent leakage and repair them as soon as detected, through all measures being technically feasible and not entailing disproportionate costs. Thus, operators of applications containing less than 3 kg still have to be diligent in order to avoid leakage and repair them promptly.

Paragraph 2 goes a step beyond by specifying further the respective schedule for leakage checks depending on the quantities contained in the applications. This paragraph only applies to applications containing 3 kg or more (6 kg or more if hermetically sealed). However, one should add that Member States may decide, at national level, to go for leakage checking obligations and schedules also for applications containing less than 3 kg.

Finally, the obligation to maintain records, as laid down in paragraph 6, does not apply to applications containing less than 3 kg of fluorinated greenhouse gases. In this paragraph no special reference is made to hermetically sealed systems. Therefore, maintenance of records is also required for hermetically sealed systems with a charge of 3 kg or more.

In regard to the information recorded "the dates and results of the checks carried out under paragraphs 2, 3 and 4" would not be relevant to hermetically sealed systems with a charge between 3kg and 6kg. The same applies to the additional information requirements laid down in Article 2 of Commission Regulation 1516/2007, which only covers equipment subject to obligatory leakage checks i.e. when hermetically sealed, 6kg or more. Other information specified in Article 3(6) of Regulation 842/2006 e.g. identification of company/technician who performed the servicing or maintenance would be relevant to hermetically sealed systems with a charge between 3kg and 6kg. Such systems often have emergency caps and service ports to allow servicing and repair when needed.

7.2 Recovery (Article 4)

This article does not set any threshold of fluorinated greenhouse gas quantities, therefore it applies to all equipment and products covered by its provisions irrespective of the quantity of fluorinated greenhouse gas they contain.

7.3 Training and certification (Article 5)

Paragraph 1 makes it clear that with regard to training programmes and certificates the Commission shall establish minimum requirements and conditions for mutual recognition for applications covered by Article 3(1) (i.e. without any threshold) as well as for the personnel involved in containment and recovery activities (Article 4 on recovery does not set any threshold either).

Minimum requirements for personnel and companies involved in installation, maintenance or servicing and leak repairs of the equipment and systems covered by Article 3 (1), as well as for the personnel involved in recovery activities provided for in Article 4 are also of relevance and application to applications of less than 3 kg, whereas minimum requirements for personnel involved in leakage checks (Article 3(2)) are only relevant to applications containing 3kg (6kg if hermetically sealed) or more of F-Gases.

8. Issues related to the entry into application of Regulation 842/2006

With the exception of Article 9 and Annex II, the Regulation entered into application on 4 July 2007.

As regards the Regulation's containment provisions (Article 3), the schedule for standard leakage checking established by Art. 3 (2) is applicable as from 4 July 2007, which means that operators should already now make sure that the relevant applications are checked for leakage once every 12, 6 or 3 months, depending on their charge.

Pending the adoption of the certification requirements pursuant to Article 5(1) and the establishment or adaptation of national certification requirements pursuant to Article 5(2), operators can have checks for leakage carried out by personnel qualified according to the existing national requirements, yet not formally certified. When the certification requirements enter into application, operators shall ensure that the checks are carried out by personnel complying with those requirements as from the following check. The same applies for personnel and companies involved in installation, maintenance or servicing of the equipment or systems, covered by Article 3(1).

Similarly, in regard to the Regulation's recovery provisions (Article 4), operators should already put in place arrangements for the proper recovery of fluorinated greenhouse gases from the applications covered by Article 4(1), in order to ensure their proper recycling, reclamation or destruction. Pending the adoption of the certification requirements pursuant to Article 5(1) and the establishment or adaptation of national certification requirements pursuant to Article 5(2), operators can have recovery operations carried out by personnel qualified according to the existing national requirements, yet not formally certified. When the certification requirements enter into application, operators shall ensure that recovery is carried out by personnel complying with those requirements as from the following recovery operation.

Finally, fluorinated greenhouse gases in other products and equipment covered by Article 4(3) should already be recovered, to the extent that this is technically feasible and does not entail disproportionate cost, by appropriately qualified personnel. Unless minimum requirements at EU level are in force for specific products and equipment, personnel qualified according to the national requirements, should be eligible to carry out this activity.

9. The scope of Article 5(4)

Article 5(4) requires that as of 4 July 2009, Member States shall ensure that the companies involved in carrying out the activities provided for in Articles 3 (leak checks) and 4 (recovery) shall only take delivery of fluorinated greenhouse gases, where their relevant personnel hold the certificates mentioned in 5(2).

Activities provided for by Article 4 include, *inter alia*, the recovery from refillable or non-refillable containers at the end of their life and the recovery from other products or equipment, to the extent that this is feasible and does not entail disproportionate cost. The lack of an explicitly stated requirement for personnel involved in those activities to be certified has created an ambiguity on the scope of this provision, raised by some Member States.

In the case of containers, the Regulation obliges the person who utilises the container to put in place arrangements for the proper recovery of residual gases; however no reference is made to certification of personnel, whereas in the case of other products and equipment, recovery needs to be undertaken by appropriately qualified personnel, however not necessarily certified.

The Commission services' opinion is that Article 5(4) only applies to the activities where the Regulation does require personnel to hold certificates. These are the activities covered by Article 4(1): recovery of fluorinated greenhouse gases from the cooling circuits of stationary refrigeration, air-conditioning and heat pump equipment, from equipment containing fluorinated greenhouse gas-based solvents, from fire protection systems and fire extinguishers and from high-voltage switchgear.

Therefore, to the Commission services' view, the obligation for Member States provided by Article 5(4) should not be seen as extended to activities for which no certification is required by the Regulation, irrespectively of any certification requirements for additional activities established at national level or of any attestation-based training requirements [e.g. recovery from air-conditioning systems in motor vehicles] established at EU level.

10. Language of the label

The Commission Regulation (EC) No 1494/2007 was established pursuant to Article 7 of Regulation (EC) No 842/2006. Paragraph 3 of this Article required the Commission to establish, *inter alia*, the form of label, including the language to be used, which, certain products and equipment containing certain fluorinated greenhouse gases would need to have in order to be "placed on the market".

The term "placing on the market" in the context of both the Regulation (EC) No 842/2006 and its implementing acts, including Commission Regulation (EC) No 1494/2007, has to be interpreted in the following manner for the language requirement. Indeed "placing on the market" in the context of the Regulation (EC) No 842/2006 refers only to the **"first time"** the given products are placed onto the Community market.

Article 2(4) of Commission Regulation (EC) No 1494/2007 establishing the form of labels and additional labelling requirements as regards products and equipment containing certain fluorinated greenhouse gases, provides that:

*"Member States **may** make the placing on the market of products and equipment covered by this Regulation on their territory **subject to use of their official languages** in respect of the labelling requirements referred to in paragraphs 1, 2 and 3".*

This **"may"** provision allows Member States, wishing to decide so, to require that label information is available in their official language(s), when such products and equipment are **first** placed in the Community market on their territory.

Consequently, for an entity first placing onto the Community market, products containing fluorinated greenhouse gases, in a Member State A, the information on the label shall be stated *as a minimum*¹ in:

- the official language(s) of Member State A if that Member State A makes use of provisions of Article 2(4), or
- any Community language if that Member State A does NOT make use of provisions of Article 2(4);

For any subsequent distribution or sale to a Member State B, of the labelled products first placed onto the market of Member State A – i.e. **after** their first placing on the market -, no other language(s) than the ones required by Member State A can be imposed by Member State B, **on the basis of this** Regulation.

An entity maintaining stocks of products containing fluorinated greenhouse gases – i.e. **prior** to their "placing on the market"- in a Member State A, is only required to apply the language decision of the Member State C where it will first place the products on the Community market.

11. Activities requiring certified personnel.

Equipment	Activity requiring certified personnel	Cat. I	Cat. II	Cat. III	Cat. IV
Equipment with F-gas charge	Recovery	✓	✓	✓	

¹ It is expected, however, that commercial considerations will lead manufacturers and importers to adapt to language needs of targeted customers.

<3kg (6kg if hermetically sealed)	Installation, maintenance or servicing	✓	✓		
Equipment with F-gas charge = 3kg (6kg if hermetically sealed) or more	Leakage checking not entailing breaking into the circuit	✓	✓		✓
	Leakage checking (including breaking into the circuit)	✓			
	Recovery	✓			
	Installation, maintenance or servicing	✓			

12. Definition of « personnel » in the context of Regulation (EC) No 842/2006 and its implementing acts

The Commission services have been informed that some actors involved in the installation of equipment containing F-Gases considered the term "personnel" referred to in several occasions in Regulation (EC) No 842/2006 and its implementing acts as referring only to workers employed by a company, i.e. not to autonomous workers; on this basis, they concluded that the latter were not covered by the relevant provisions on certification and were therefore entitled to carry out activities on equipment containing F-gases even without being certified.

The system for the certification of companies and personnel established by Commission Regulations aims to ensure that particular technical activities which could potentially affect leakage of F-Gases from equipment, are carried out only by persons which have the necessary skills and knowledge. It is a fundamental element of the measures introduced by Regulation (EC) No 842/2006 aiming to contain, prevent and reduce F-Gas emissions.

The fact that there is no definition of "personnel" in Regulation (EC) No 842/2006 and its implementing acts shows that this word has not been considered as a possible source of confusion or controversy by the European legislator, otherwise a definition would have been provided (as it is the case, for example, for "operator" under Article 2, point 6 of Regulation (EC) No 842/2006).

Therefore the term "personnel" should be interpreted under common sense and considering the context and the objectives of the regulatory framework mentioned above, i.e. as any person carrying out the particular technical activities related to F-Gases. There is no element in Regulation (EC) No 842/2006 nor in any of its implementing acts to conclude that the qualification of the persons working with F-gases as "employee" or as "autonomous worker" may be relevant. This interpretation is also supported by the reference to technicians (i.e. person) in Article 3(6) of Regulation (EC) No 842/2006: *"Operators...shall...maintain records of other relevant information including the identification of the company or **technician** who performed the servicing or maintenance..."*.

If the European legislator would consider necessary to distinguish amongst technicians and to exclude autonomous workers from the certification system, he would have certainly done that expressly by introducing a derogation in the text of the Regulations.

In the absence of any provision in this sense, a narrow interpretation of "personnel" has no basis and goes against the objectives and the spirit of the F-Gas Regulations. In addition, it introduces an unjustified discrimination between employed and autonomous workers that should be evaluated in the light of the general principles of the EU Law.

It can also be noted that "personnel" was used in a similar context in Articles 16 and 17 of Regulation (EC) No 2037/2000 on substances that deplete the ozone layer (now Regulation (EC) No 1005/2009) and its interpretation has never been controversial.

13. Issues related to the certification of personnel

13.1 Regulation (EC) No 303/2008 and mutual recognition

The following issue was raised by a national association in the sector of refrigeration: may a Member State, on environmental grounds, decide not to include one of the certificate categories for personnel listed in Article 4.2 of Regulation 303/2008 (ex. category II)? In such case how personnel with category II certificates issued in other Member States should be dealt with?

Article 4 of Regulation (EC) No 303/2008 provides for different categories of certified personnel. Each category covers particular activities which are defined in points (a) – (d) allowing personnel to be qualified for the activities which they undertake, avoiding in this way disproportionate costs. On the basis of this provision, which is binding and directly applicable in all Member States, a person can be granted a certificate for one of the categories and be authorised to perform the activities covered by the definition of that category.

The condition for granting a certificate is the successful completion of a theoretical and practical examination by the applicant, covering the *minimum* requirement (skills and knowledge) referred to in the Annex to Regulation 303/2008, for the category concerned. These minimum skills and knowledge have been considered adequate to ensure that in all Member States the activities covered by the respective category are carried out by qualified persons. In addition, as it results from Article 13 of the Regulation, they establish the base for mutual recognition of personnel certificates issued in other Member States in accordance with Article 5.

The possibility to invoke environmental reasons for maintaining or adopting stricter requirements than those laid down in Regulation 303/2008 concerns the requirements to grant the certificates and not the certificate categories. Moreover, any possible additional requirement should not be taken into consideration by a Member State for mutual recognition of Article 13, because the only condition to consider valid and accept a certificate granted in another Member State is that the minimum requirements of Regulation 303/2008 have been respected through the certificate issued.

Consequently, a Member State cannot restrict personnel certified under a specific category in another Member State from carrying out the activities covered by that category on its territory, provided that the certificate has been issued by that Member State in accordance with the provisions of Article 5 of Regulation 303/2008. In other words, a Member State can refuse to recognise personnel certificates of a particular category only if the requirements on the basis of which these certificates have been issued in another Member State do not comply with the minimum requirements of Regulation 303/2008.

13.2 Mutual recognition of certificates issued in another Member State

Regulations (EC) No 303, 304, 305, 306 and 307/2008 state that the mutual recognition of certificates/training attestations issued in other Member States shall (only) apply to certificates/training attestations issued in accordance with the relevant provisions of the Regulations. The principle of mutual recognition works automatically and therefore the competent authorities of the Member State who receive the certificates/attestations issued in other Member States in conformity with the minimum requirements of the Regulations do not have to set up any additional procedure to “validate” them.

The translation is expressly foreseen by the Commission Regulations (*“Member States may require holders of certificates issued in another Member State to provide a translation of the certificate/training attestation in another official Community language”*: Reg. 303 Art 13.2, Reg. 304 Art. 13.2, Reg. 305 Art. 8.2, Reg. 306 Art 7.2 and Reg. 307 Art 5.2). In the light of the language used and also of Article 5.3 of the Services Directive², the Commission Services believe that the translation of the certificate/attestation does not need to be a certified translation e.g. a translation performed by a notary public/other public authority.

14. Issues related to the certification of companies

14.1 Application of more stringent requirements than those of Regulations (EC) No 303/2008 and No 304/2008

Regulations (EC) No 303/2008 and (EC) No 304/2008 lay down *minimum* requirements for the certification of companies as regards stationary refrigeration, air conditioning and heat pump equipment, stationary fire protection systems and fire extinguishers containing F-Gases respectively.

Member States may decide to complement the rules they put in place/adapt on the basis of these Regulations with more stringent requirements for the certification of companies, provided that they respect the EU minimum requirements and that the certificates for companies issued in other Member States and meeting the EU minimum requirements in accordance with the Regulations are accepted.

It is also important that the national rules on certification, for the aspects that are not covered by Regulations 303/2008 and 304/2008, take account of and respect the general principles of freedom of establishment and free movement of services set out in Articles 49 and 56 of the TFEU (Treaty on the Functioning of the EU) as well as in Directive 123/2006/EC on Services in the Internal Market, which had to be implemented in all the Member States by 28 December 2009.

15. Frequency of leakage checks

² Art. 5.3 of Directive 2006/123/EC says that Member States “*may not require a document from another Member State to be produced....as a certified translation, save in the cases provided for in other Community instruments or where such a requirement is justified by an overriding reason relating to the public interest, including public order and security*”.

According to the schedule described in Article 3.2, (a), (b) and (c) of Regulation (EC) No 842/2006, the checks for leakage in stationary applications using F-Gases shall take place at least once every twelve, six or three months respectively, depending on the quantity of F-Gases in the applications.

The expression “every twelve months” clearly means that the check has to be performed within a period not exceeding 12 months following the date of the last check realised. Any flexible interpretation of this provision that would permit to delay leakage checks for several months in the course of the same calendar year should be considered as not in line with the objective of the Regulation.