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The new F-gas Regulation: detailed guidelines

This paper provides a comprehensive overview of the revised rules on fluorinated gas (EU F-Gas Regulation) and their implications for the heat pump sector. It covers key topics such as bans, HFC phase-down, overlap with REPowerEU, leakage control, market placement, export/import procedures, customs regulations, training and certification requirements and review clauses, aiming to clarify the regulatory landscape and its impact on stakeholders.

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Background

Heat pumps currently use a wide range of fluorinated gases (F-gases) as refrigerants. The revised F-Gas Regulation will require the industry to transition to alternative refrigerants with a lower Global Warming Potential (GWP) more rapidly, in line with the EU climate targets¹.

In 2014, the EU adopted the revision of the 2006 F-Gas Regulation. [The 2014 Regulation](#) limited the total amount of F-gases that can be sold in the EU from 2015 and introduced a phase-down for virgin [hydrofluorocarbons](#) (HFCs) to reach one-fifth of 2014 levels in 2030. The Regulation also banned the use of certain F-gases in equipment where alternatives with lower global warming potential ('GWP') were available and required servicing and recovery of the gases at the end of the equipment's life.

In 2022, the European Commission (EC) proposed a revised version of the Regulation which would bring F-Gas quantities down much faster. In February 2024, the Revised F-gas Regulation was published in the [Official Journal](#), entering into force on 11 March 2024.

Main novelties of the revised F-gas Regulation

THE **NEW** EU F-GAS REGULATION

IMPACTS ON THE HEAT PUMP SECTOR

WHAT'S **NEW ?**

- Virgin hydrofluorocarbons (HFCs) phase-down is steeper than in 2015.
- New prohibitions for placing on the market of new equipment & larger scope of the service ban for existing equipment.
- Certification & training requirements extended to HFOs, non-fluorinated alternatives and more types of equipment.
- Clearer rules for customs & competent authorities to crack down on illegal activities.

WHEN IS THE ACCELERATED PHASE-DOWN STARTING?

The accelerated phase-down of virgin HFCs will start in **2025**

From **2050** onwards the amount of virgin HFCs allowed in the EU will be **zero***

*By 2040 a review will be done to assess the feasibility of 'zero' by 2050.

WHAT WILL BE **BANNED AND WHEN?**

MONOBLOCK HEAT PUMPS AND AIR-CONDITIONING:
ANNEX IV – Art. 8

- 2020** Plug-in room air-conditioning equipment moveable between rooms containing F-gases with a GWP ≥150.
- 2027** Plug-in room air-conditioning, monoblock air-conditioning, other self-contained air-conditioning equipment and heat pumps, max. 12 kW containing F-gases with a GWP ≥150.*
- 2032** Plug-in room air-conditioning equipment, monoblock air-conditioning equipment, other self-contained air-conditioning equipment and heat pumps, max. 12 kW containing F-gases.*
- 2027** Monoblock and other self-contained air-conditioning equipment and heat pumps, between 12 kW and 50 kW, containing F-gases with a GWP ≥150.*
- 2030** Other self-contained air-conditioning equipment and heat pumps containing F-gases with a GWP ≥150.

SPLIT HEAT PUMPS AND AIR CONDITIONING:
ANNEX IV – Art. 9

- 2025** Single split systems containing less than 3 kg of F-gases containing F-gases with a GWP ≥750.
- 2027** Split air-to-water systems max. 12 kW containing F-gases with GWP ≥150.*
- 2029** Split air-to-air systems max. 12 kW containing F-gases with GWP ≥150.*
- 2035** Split systems max. 12 kW containing F-gases.*
- 2029** Split systems ≥12 kW containing F-gases with GWP ≥750.*
- 2033** Split systems ≥12 kW containing F-gases with GWP ≥150.*

NOTE

*The ban of certain applications receives an exemption if "required to meet safety requirements" and are in that case allowed to use refrigerants with a higher Global Warming Potential (GWP).

Next steps regarding the F-gas Regulation

The EC is working on the most urgent Implementing Regulations. Between May and July 2024, public consultations for some of these Regulations took place. Following the consultations, four Implementing Regulations were adopted by the EC in September 2024:

¹ More information can be found on the European Commission's F-gas dedicated website, available here: https://climate.ec.europa.eu/eu-action/fluorinated-greenhouse-gases_en

- [Commission Implementing Regulation \(EU\) 2024/2215](#) establishing minimum requirements for the issuance of certificates to natural and legal persons
- [Commission Implementing Regulation \(EU\) 2024/2195](#) determining the format for submitting the reports of data
- [Commission Implementing Regulation \(EU\) 2024/2174](#) as regards the format of the labels for certain products and equipment containing fluorinated greenhouse gases
- [Commission Implementing Regulation \(EU\) 2024/2473](#) as regards the registration in the F-gas Portal

Other public consultations will open in the coming months, including the Implementing Regulation on the [Template for the Declaration of Conformity](#). The final drafts will have to be approved through the formal procedure. When ready, they will be available on the [Have Your Say](#) platform.

Implementing acts	Delegated acts
<p>Implementing acts are adopted by the European Commission to ensure uniform implementation of EU laws in areas where such consistency is necessary, such as taxation, agriculture, and health. These acts are typically adopted after consultation with a committee representing EU countries and may involve feedback from citizens and stakeholders.</p>	<p>Delegated acts are adopted by the European Commission based on powers delegated to it in existing EU laws. However, these acts are subject to strict limits, including the requirement that they cannot change the essential elements of the law. Delegated acts are prepared after consultation with expert groups and may also involve feedback from citizens and stakeholders. Once adopted, they are subject to review by the European Parliament and Council, who have the authority to revoke the delegation or express objections to the act.</p>

Source: [Implementing and delegated acts](#), European Commission.

In the following sections, this paper will explore the F-gas Regulation, addressing key elements including placing on the market, prohibitions related to heat pumps, the phase-down of virgin HFCs, the intersection of REPowerEU and the F-gas Regulation, leakage control, market placement, export and import procedures, customs regulations, certification and training requirements, as well as the review clauses of the Regulation.

1. Prohibitions on heat pumps in the F-gas Regulation

New prohibitions on placing on the market of heat pumps are included in Annex IV of the revised F-gas Regulation.

Monoblock ('self-contained') heat pumps and air-conditioning

Product category	GWP value ²	Year of ban
Plug-in room air-conditioning which is moveable between rooms by the end user that contains HFCs with a GWP of 150 or more	≥ 150	January 2020
Plug-in room air-conditioning, monoblock air-conditioning, other self-contained air-conditioning and self-contained heat pumps, max 12 kW capacity with F-gases with a GWP of 150 or more , except if required to meet safety requirements*	≥ 150	January 2027
Plug-in room air-conditioning, monoblock air-conditioning, other self-contained air-conditioning and self-contained heat pumps, max 12 kW that contain F-gases , except if required to meet safety requirements*	No F-Gas	January 2032
Monoblock and other self-contained air-conditioning and heat pumps, between 12 kW and 50 kW that contain F-gases with a GWP of 150 or more, except if required to meet safety requirements*	≥ 150	January 2027
Other self-contained air-conditioning and heat pumps that contain F-gases with GWP of 150 or more, except if required to meet safety requirements*	≥ 150	January 2030

*If safety requirements at the site of operation would not allow using alternatives to fluorinated greenhouse gases, the GWP limit is 750.

Split heat pumps and air conditioning

Product category	GWP value	Year of ban
Single split systems , containing < 3 kg of F-gases that contain, or whose functioning relies upon, F-gases with GWP of 750 or more	≥ 750	January 2025
Split air-to-water systems , max 12 kW containing, or whose functioning relies upon, F-gases with a GWP of 150 or more, except if required to meet safety requirements at the site of operation	≥ 150	January 2027
Split air-to-air systems max 12 kW containing, or whose functioning relies upon, F-gases with a GWP of 150 or more, except if required to meet safety requirements at the site of operation	≥ 150	January 2029

² As defined in the F-gas Regulation, global warming potential (GWP) means the climatic warming potential of a greenhouse gas relative to that of carbon dioxide (CO₂), calculated in terms of the 100-year global warming potential, unless otherwise specified, of one kilogram of a greenhouse gas relative to one kilogram of CO₂.

Split systems , max 12 kW containing, or whose functioning relies upon, F-gases, except if required to meet safety requirements at the site of operation	No F-Gas	January 2035
Split systems , more than 12 kW containing, or whose functioning relies upon, F-gases with a GWP of 750 or more, except if required to meet safety requirements at the site of operation	≥ 750	January 2029
Split systems , more than 12 kW containing, or whose functioning relies upon, F-gases with a GWP of 150 or more, except if required to meet safety requirements at the site of operation	≥ 150	January 2033

Exemptions

In addition to the time-unlimited **safety exemptions** in Annex IV, Art. 11.2 outlines a time-unlimited exemption for products for which it has been shown that the **lifecycle CO₂ emissions are lower than that of equivalent equipment** pursuant to Ecodesign requirements adopted under Directive 2009/125/EC.

Article 11.5 illustrates time-limited exemptions for products bans. A request for exemption should be substantiated by a competent Member State authority and, exceptionally, by means of implementing acts, authorise an exemption for up to four years where it is demonstrated that:

- (a) *“For a specific product or a piece of equipment, or for a specific category of products or equipment, alternatives are not available, or cannot be used for technical or safety reasons*
or
- (b) *The use of technically feasible and safe alternatives would entail disproportionate costs.”*

One example of the application of this article is the [Implementing Regulation - EU - 2024/2729](#).

The Implementing Regulation delivers a **four-year derogation** (until 31 December 2028) from product ban number 4 (*self-contained refrigeration equipment, except chillers, that contain fluorinated greenhouse gases with a GWP of 150 or more*) for the following types of laboratory refrigeration equipment:

- (i) *“Environmental simulation devices consisting of a test chamber used to reproduce a variety of environmental conditions e.g. time-dependent temperature and humidity, for applications below – 50 °C;*
- (ii) *laboratory equipment used for the drying of liquid samples, by spray-drying or freeze-drying; and*
- (iii) *laboratory centrifuges which are equipment separating fluids of different densities or liquids from solids in a rapidly rotating container.”*

These equipment categories will be allowed to use refrigerants with a GWP above 150 until 2028 included. This decision was taken following the assessment of the request submitted by the German competent authority pursuant to Article 11(5) of the F-gas Regulation.

EHPA's Refrigerants Task Force is working on guidelines on the application of the safety exemptions in Annex IV of the F-gas Regulation, together with other industry associations.

Rated capacity

The rated capacity of the equipment determines compliance with the prohibitions and exemptions outlined in the revised F-gas Regulation. It defines the threshold values that categorise equipment for regulatory purposes, such as the GWP limits and associated bans or exemptions.

According to section 11 of the Annex to the Commission Implementing Regulation (EU) 2024/2195 which determines the format for submitting the data reports referred to in Article 26 of the F-gas Regulation:

“Where there is a reference to rated capacity and the equipment can have different functions the rated capacity refers to the primary function of the equipment.

Where Eco-design legislation adopted under 2009/125/EC establishes a method for calculating the rated capacity of an equipment, that method shall be used.”

Servicing ban

Concerning the maintenance or servicing of air-conditioning equipment and heat pumps, a GWP below the 2500 limit for virgin refrigerants will be introduced in 2026. As for the use of reclaimed or recycled refrigerants for servicing of air conditioning and heat pump equipment, a GWP below the 2500 limit starts in 2032.

Further explanation from the Commission's Directorate-General for Climate Action (DG CLIMA) on the prohibitions on heat pumps in the F-gas Regulation³

- **Safety restrictions:**

- The derogation for the GWP value related to safety requirements is specific to the place where the equipment is used. It is the responsibility of the operator and installer to only put in place equipment with a higher GWP in cases when products compliant with the F-Gas GWP limit cannot be placed due to safety requirements.
- **Customer choice prevails.**
 - For example, if a customer wants to install a rooftop unit, and it is not possible to install a rooftop unit at the site of installation compliant with the F-Gas GWP limits, they should not be forced to install a chiller.
 - A customer should also be able to decide where the unit is installed. A specific location may be preferred for different reasons (noise, aesthetics...). If at the selected location, a system compliant with the F-Gas limits cannot be installed due to safety reasons, the exemption applies.
- Equipment making use of the safety exemption will need to be labelled accordingly. Article 13 (paragraph 19) of the Regulation specifies the following:

“The putting into operation of any equipment or utilisation of any product listed in points 2(b), 4, 5(c), 7(b), (c) and (d), 8(b) to (e), 9(b) to (f), 11(c), 17(c) and 19(b) of Annex IV after the respective prohibition date specified in those points shall be prohibited unless the operator can provide evidence that:

- (a) the relevant safety requirements at the particular location do not permit the installation of equipment using fluorinated greenhouse gases below the global warming potential value specified in the respective prohibitions; or*
- (b) the equipment was placed on the market before the relevant prohibition date set out in Annex IV”*

The [Implementing Regulation 2024/2174](#) provides further details on the labelling of products and equipment containing F-gases. It mandates that the label shall – from the dates of the prohibition specified in Annex IV – include the following text: *“Prohibited to be operated, unless required by safety requirements that have to be applied at the site of operation”, complemented by a reference to the applicable*

³ Based on a Q&A session webinar organised by EHPA with DG Clima on 11 January 2024. The subsequent sections with further explanations from DG Clima refer to the same source and date.

safety requirement that would make its use necessary, or, where it is not feasible to specify prior to placing on the market the safety requirement for the specific site of operation, providing space on the label for this specification to be inserted by the supplier, or where applicable, the installer or operator of the equipment prior to putting the equipment into operation”

- In case of a GWP below the 150 limit, if a safety requirement prohibits the use of A3 refrigerants (e.g. R-290), A2L refrigerants with a GWP of <150 are still allowed.
- **Categorisation of products:**
 - The ban on single split systems, containing less than 3 kg of fluorinated greenhouse gases with a GWP of 750 or more, applies to both air-to-air and air-to-water systems.

2. The HFC phase-down

The new phase-down of virgin hydrofluorocarbons (HFCs) will apply in 2025, one year after the publication of the law.

From 2050 onwards, the amount of virgin HFCs allowed on the EU market each year will be zero, but this is subject to a review by 2040.

Phase-down quota in the F-gas Regulation (Annex VII)

The maximum quantity of hydrofluorocarbons allowed to be placed on the EU market in a given year is as follows:

Years	Maximum quantity in tonnes CO ₂ equivalent
2025 – 2026	42 874 410
2027 – 2029	21 665 691
2030 – 2032	9 132 097
2033 – 2035	8 445 713
2036 – 2038	6 782 265
2039 – 2041	6 136 732
2042 – 2044	5 491 199
2045 – 2047	4 845 666
2048 – 2049	4 200 133
2050 onwards	0

In the context of the [REPowerEU Plan](#)⁴, which requires the amount of newly installed heat pumps to double every four years, the new F-gas Regulation foresees the possibility of receiving a limited additional amount of the HFC quota. It is stated in Recital (17) that the EC “*should closely monitor market developments, including the development of prices of fluorinated greenhouse gases listed in Section 1 of Annex I and assess at least annually whether severe shortages exist that could endanger the attainment of the REPowerEU heat pump deployment targets. If the Commission finds that such shortages exist, it should be possible to make additional amounts of HFC quota available for the heat pump sector, in addition to the quota set out under Annex VII.*”

Quota pricing

As explained in Article 17: “*The quota allocations shall be subject to the payment of the amount due which equals EUR 3 for each tonne of CO₂ equivalent of quota to be allocated. Producers and importers shall be notified via the F-gas Portal of the total amount due for their calculated maximum quota allocation for the following calendar year and of the deadline for completing the payment.*”

⁴ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions on the REPowerEU Plan, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A230%3AFIN&qid=1653033742483>

The Commission may, by means of implementing acts, determine the detailed arrangements for the payment of the amount due.”

Concerning quotas that are not paid: “By 31 December 2027, the Commission shall redistribute the quota for which a payment has not been made by the set deadline, free of charge, to only those producers and importers that have paid the total amount due for their calculated maximum quota allocation.”

3. Leakage control

Leak check provisions are included in Article 5 of the revised F-gas Regulation, and leakage detection systems-related provisions in Article 6 of the same Regulation. **Leak checks** must be conducted for products using HFC and HFC blends, and, following the adoption of the revised Regulation, products using hydrofluoroolefins (HFOs) must also be checked. Art. 5 stipulates the thresholds from which these leak check requirements are applicable.

In particular, Article 5 states that: “Operators and manufacturers of equipment that **contains 5 tonnes of CO₂ equivalent or more of fluorinated greenhouse gases listed in Annex I or 1 kilogram or more of fluorinated greenhouse gases listed in Section 1 of Annex II** that is not contained in foams, shall ensure that the equipment is checked for leaks.”

This is followed by specific requirements that hermetically sealed equipment shall fulfil in order to be exempted for mandatory periodic leakage controls that otherwise apply.

The article specifies that: “Hermetically sealed equipment shall not be checked for leaks provided that it is labelled as hermetically sealed equipment and that it complies with one of the following conditions:

- a. *it contains less than 10 tonnes of CO₂ equivalent of fluorinated greenhouse gases listed in Annex I; or*
- b. *it contains less than 2 kilograms of fluorinated greenhouse gases listed in Section 1 of Annex II”*

In case of required leak checks, the Article establishes how often leaks checks shall be carried out for each type of equipment:

- **“For equipment that contains less than 50 tonnes of CO₂ equivalent of fluorinated greenhouse gases listed in Annex I or less than 10 kilograms of fluorinated greenhouse gases listed in Section 1 of Annex II: at least every 12 months; or where a leakage detection system is installed in such equipment, at least every 24 months.**
- **For equipment that contains 50 tonnes of CO₂ equivalent or more, but less than 500 tonnes of CO₂ equivalent of fluorinated greenhouse gases listed in Annex I or 10 kilograms or more, but less than 100 kilograms of fluorinated greenhouse gases listed in Section 1 of Annex II: at least every 6 months or, where a leakage detection system is installed in such equipment, at least every 12 months.**
- **For equipment that contains 500 tonnes of CO₂ equivalent or more of fluorinated greenhouse gases listed in Annex I or 100 kilograms or more of fluorinated greenhouse gases listed in Section 1 of Annex II: at least every 3 months or, where a leakage detection system is installed in such equipment, at least every 6 months”.**

Further explanation from the DG CLIMA on leakage control

- **Leakage control requirements:** Leak checks under Article 5 of the F-gas Regulation apply solely to fluorinated refrigerants listed in Annex I and section 1 of Annex II. While it remains possible for national authorities to extend these requirements to natural refrigerants, the F-gas Regulation itself does not cover these substances.
- **Provision (36f) regarding refrigeration:** Air conditioning units and heat pumps are excluded from the definition of refrigeration. Chillers are considered a separate category in Annex IV, as they can serve various functions including refrigeration, comfort, cooling, heating, or process applications. However, it should be noted that in other articles of the Regulation, chillers are considered as part of either refrigeration, air conditioning or heat pumps.

4. Placing on the market

Placing on the market in the revised F-gas Regulation

As per Article 3 of the revised F-gas Regulation, **placing on the market** means: “*the customs release for free circulation in the Union or the supplying or making available to another person within the Union, for the first time, for payment or free of charge, or the use of substances produced, or of products or equipment manufactured, for own use*”.

Article 11 outlines restrictions on placing on the market and sale. In particular, it states that “*The placing on the market of products and equipment, including parts thereof, listed in Annex IV, shall be prohibited from the date specified in that Annex, according to the GWP of the refrigerant used.*”

In relation to the **re-export of products**, Article 11 of the Regulation mandates the following: “*Products and equipment, including parts thereof, unlawfully placed on the market after the date referred to in the first subparagraph, shall not be subsequently used, supplied, or made available to other persons within the Union for payment or free of charge, or exported. Re-export of such products and equipment is allowed when the non-compliance with this Regulation has been established prior to the release for free circulation of goods for the purpose of import, in accordance with the measures referred to in Article 23(12). Such products and equipment may only be stored or transported for subsequent disposal and for the recovery of the gas prior to the disposal pursuant to Article 8 or for their re-export.*”

Further explanation from the DG CLIMA on the placing on the market

- **The definition of "placing on the market":** According to DG CLIMA, the term "placing on the market" refers to the initial availability of a product and is synonymous with it first being made available. This definition does not refer to the first unit of a model but to each single specific product. If, for example, wholesalers purchase heat pumps with R-410A on or before 1 December 2026, they are considered to have been placed on the market in 2026. Therefore, wholesalers can still sell these heat pumps to end customers in the following years, provided they acquired them from the manufacturer by 31 December 2026. After one year following the entry into force of the product bans, wholesalers may be asked by the authorities to share evidence that the equipment to be sold was lawfully placed on the market. More detailed information on this topic can be found in the [European Blue Guide](#), particularly in paragraphs 2.3 and 2.5. It is also important to add that one year following the individual dates listed in Annex IV, the subsequent supply or making available to another person in the Union of equipment lawfully placed on the market is **only allowed if evidence can be provided that this product was lawfully placed on the market before the product bans entered into force**.
- **Inward processing and placing on the market:** Inward processing means that non-Union goods are imported in order to be used in the customs territory of the Union in one or more processing operations. It was previously regulated under Article 15 (2c) of the former F-gas Regulation and has undergone changes in the new Regulation. However, it remains applicable for refrigerants contained in products such as cars or heat pumps. The key distinction lies in whether the gas remains within a custom procedure without being released for free circulation. In such cases, there is no need to declare quota, and it falls outside the quota system, consistent with the previous Regulation. Article 15 (formerly Article 16) of the revised F-gas Regulation deals with exemptions to the placing on the market. Inward processing is not considered "placing on the market" and is not subject to the rules and restrictions outlined in this Article. Temporary storage is included in this exemption, and the definition of placing on the market does not apply in such cases.

- **Derogation for repair and servicing:** In Article 11.1 of the F-gas Regulation, there is a derogation for the placing on the market of parts of products and equipment necessary for repair and servicing of existing equipment. For example, the addition or replacement of indoor units of an existing installation remains possible, provided that the maximum allowable charge, and maximum allowed capacity is not superseded.

5. Export and import

Fluorinated greenhouse gases imported into the Union shall be considered as virgin gases, meaning: a “*substance which has not previously been used*”, as the Regulation states in Article 3.

Prior to carrying out any activities that fall under the current F-gas Regulation, all companies must register in the [F-gas Portal & HFC licensing system](#) – which will stay the same for the revised F-gas Regulation. This is a mandatory action for companies to receive quota, for importers of equipment containing HFCs, and for all entities supplying or receiving exempted gases such as those hydrofluorocarbons imported for destruction, for use as feedstock, directly exported in bulk, as well as for use in military equipment, in semiconductor manufacturing or for metered dose inhalers (MDIs). The online mechanism for transferring bulk quota from one company to another is available in the [F-gas Portal & HFC Licensing System \(guidance document\)](#).

Provisions on imports and exports are included in Chapter V of the reviewed F-gas Regulation. In particular: “3. **From 12 March 2025** the export of foams, technical aerosols, stationary refrigeration and stationary air-conditioning equipment and stationary heat pumps as referred to in Annex IV that contain, or whose functioning relies upon, **fluorinated greenhouse gases with a GWP of 1 000 or more shall be prohibited**”. Furthermore, “By way of derogation from paragraph 3, the Commission may, by means of implementing acts, for cases of an exceptional nature, authorise the export of the products and equipment referred to paragraph 3, where it is demonstrated that in view of the economic value and the expected remaining lifetime of the specific good, the prohibition of export would impose a disproportionate burden on the exporter”.

Additionally, article 25 of the F-gas Regulation covers the trade with States or regional economic integration organisations and territories not covered by the Kigali Amendment to the Montreal Protocol. In its first paragraph, article 25 mandates that “import and export of hydrofluorocarbons and of products and equipment containing hydrofluorocarbons or whose functioning relies upon those gases, from and to any State or regional economic integration organisation that has not agreed to be bound by the provisions of the Protocol applicable to those gases, shall be prohibited from 1 January 2028.”

Further explanation from DG CLIMA on export and import

- **Ban applicability in products with two or more refrigerants:** In cases where a system utilises multiple refrigerants, the ban's application is based on whether or not the system is convertible and designed to operate using lower-GWP refrigerants. If the equipment can be used with several refrigerants and is adaptable to lower-GWP options, it would not be subject to the export ban targeting high-GWP equipment.

6. Customs

As indicated in the information for importers of equipment containing fluorinated greenhouse gases on their obligations under the new EU F-gas Regulation: *“The importer is the legal person importing the gas or the equipment when it clears EU customs. For complying with the F-gas Regulation, the paper documentation at customs is relevant as it provides proof of the importing entity. Companies are only considered to be importers if they import equipment from countries outside the EU. Companies are not considered to be importers if they only buy or sell pre-charged equipment from or to companies in other Member States. Shipments between Member States are not considered to be imports/exports.”*

As per Recital (35) under the new F-gas Regulation: *“In order to ensure automatic customs controls in real time, at shipment level, as well as the electronic exchange and storage of information on all shipments of fluorinated greenhouse gases, and products and equipment, covered by this Regulation that are presented to customs authorities in Member States (the ‘customs authorities’), it is necessary to interconnect the F-gas Portal with the European Union Single Window Environment for Customs (‘EU Single Window Environment for Customs’) established by Regulation (EU) 2022/2399 of the European Parliament and of the Council (13)”.*

7. Certification and training

Under the new F-Gas Regulation, containment, training and certification measures have been extended to HFOs. In order to obtain an F-Gas certificate, additional theoretical knowledge is now required on the use of non-fluorinated alternatives.

Certification-related provisions are outlined in Article 10:

“Natural persons shall be certified to carry out the following activities involving fluorinated greenhouse gases (...) or involving relevant alternatives to fluorinated greenhouse gases, including natural refrigerants, where relevant:

- (a) installation, maintenance or servicing, repair or decommissioning of the equipment (...)*
- (b) leak checks of the equipment (...)*
- (c) recovery from equipment (...)*”

As stated in the Regulation: *“by 12 March 2026, the Commission shall, by means of implementing acts, establish the minimum requirements for certification programmes and training attestations (...). Those minimum requirements shall specify, for each type of equipment referred to in paragraph 1, the required practical skills and theoretical knowledge, differentiating, where appropriate, between different activities to be covered, the arrangements of the certification or attestation as well as the conditions for mutual recognition of certificates and training attestations.”*

Existing certificates and training attestations issued in accordance with Regulation (EU) No 517/2014 remain valid in accordance with the conditions under which they were originally issued.

In May 2024, the EC opened a [Have Your Say](#) consultation on RACHP certification requirements extended to organic Rankine cycles and refrigerated units in mobile equipment. The feedback period closed in June. The Commission adopted the Implementing Regulation 2024/2215 in September 2024.

Based on the new Implementing Regulation, Member States have until September 2025 to implement the changes on national level and set up or adapt their training and certification programs.

8. Review clauses

As per Article 35 of the Regulation, the EC can adopt delegated acts to amend Annexes I, II, III, and VI concerning the global warming potential of gases, based on new reports from the IPCC or the Scientific Assessment Panel (SAP) of the Protocol.

The EC can also amend the lists of gases in Annexes I, II, and III through delegated acts if it is found that these gases significantly impact the climate and are produced, imported, or placed on the market in significant quantities.

Article 35 also requires the preparation of a series of reports, as follows:

- *“By 1 **July 2027**, the Commission shall publish a report assessing whether cost-effective, technically feasible, energy efficient and reliable alternatives exist, which make the replacement of fluorinated greenhouse gases possible in mobile refrigeration and mobile air-conditioning equipment, and where appropriate, put forward a legislative proposal to the European Parliament and to the Council to amend the list set out in Annex IV.*
- *By 1 **July 2028**, the Commission shall publish a report assessing the impact of this Regulation on the health sector, particularly the availability of metered dose inhalers for the delivery of pharmaceutical ingredients, as well as the impact on the market of cooling equipment used in conjunction with batteries.*
- *By 1 **January 2030**, the Commission shall publish a report on the effects of this Regulation. The report shall include an evaluation of the following:*
 - (a) *whether cost-effective, technically feasible, energy-efficient, sufficiently available and reliable alternatives exist, which make the replacement of fluorinated greenhouse gases possible in the products and equipment listed in Annex IV covered by prohibitions that have not yet become applicable at the time of the evaluation, especially products and equipment subject to full fluorinated greenhouse gas prohibitions, including ‘split’ air conditioners and heat pumps;*
 - (b) *international developments relevant for the shipping sector and the potential expansion of the scope of containment requirements to fluorinated greenhouse gases contained in refrigeration and air-conditioning equipment of ships;*
 - (c) *the potential expansion of the scope of the export prohibition referred to in Article 22(3), taking into account, inter alia, the potential increased global availability of products and equipment containing low GWP fluorinated greenhouse gases or natural alternatives and developments under the Protocol;*
 - (d) *the potential inclusion in the quota requirement laid down in Article 16(1), of the hydrofluorocarbons for purposes listed in Article 16(2), in particular hydrofluorocarbons supplied directly by a producer or an importer to an undertaking using it for etching of semiconductor material or the cleaning of chemicals vapour deposition chambers within the semiconductor manufacturing sector;*
 - (e) *the risk of excessive reduction of competition in the market due to the prohibitions and related exceptions under Article 13(9), in particular those on high voltage electrical switchgear of more than 145 kV or more than 50 kA short circuit current.*
- *Before 1 **January 2040**, the Commission shall review the needs for hydrofluorocarbons in the sectors where they are still used and the phase-out of HFC quota set out in Annex VII for the year 2050, in particular, taking into account technological developments, the availability of alternatives to hydrofluorocarbons for the relevant applications and the*

Union's climate targets. Where appropriate, the review shall be accompanied by a legislative proposal to the European Parliament and Council."

Appendix

Useful links and resources

- [Revised F-gas Regulation](#)
- [European Commission's website on F-gas](#)
- [EHPA's position on refrigerants-related policies](#)
- [Minutes and slides from EHPA webinar with DG Clima on F-gas Regulation](#)
- [European Commission's TAXUD website](#)
- [F-gas Portal & HFC Licensing System](#)
- [European Commission's guide on how to make quota transfer in the HFC Registry](#)
- [European Commission's guide on how to make a quota declaration in the HFC Registry](#)
- [European Commission's guide on how to register in the F-gas Portal & HFC Licensing system](#)
- [European Commission's guide on how to transfer \(bulk\) quota to another company in the F-gas Portal & HFC Licensing system](#)
- [European Commission's website page containing information on authorisation and delegation of quota](#)
- [List of companies for quota application/purchase](#)
- [European Commission's Blue Guide on the implementation of the product rules 2022](#)