



Department  
for Environment  
Food & Rural Affairs

# The Fluorinated Greenhouse Gases Regulations (2015) **Post Implementation Review**

October 2021



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# Introduction

Fluorinated gases (F-gases), including HFCs (hydrofluorocarbons), PCFs (perfluorocarbons) and SF<sub>6</sub> (sulphur hexafluoride), were largely introduced as replacements for ozone-depleting substances (ODS) which damage the ozone layer. Although they do not damage the ozone layer, F-gases are powerful greenhouse gases that have a Global Warming Potential (GWP) up to thousands of times higher than carbon dioxide. They are used mainly in refrigeration, air-conditioning, insulation foams, electrical equipment, aerosol sprays, medical inhalers, solvents and fire extinguishers. Emissions occur through leakage during the manufacture, operation and disposal of products, contributing to climate change. The Final UK Greenhouse Gas Emissions Statistics show that 2019 UK F-gas emissions amount to 13.4MtCO<sub>2</sub> equivalent (about 3% of total UK greenhouse gas emissions), with the refrigeration, air conditioning and heat pump sector representing 77% of that F-gas total.

**This review covers the period from March 2015 to March 2020 when the whole of the UK operated under the directly applicable EU F-gas Regulation No. 517/2014 (the “EU F-gas Regulation”). References throughout this report to the EU F-gas regime are to be read as they applied during the period of this review.**

**From 1 January 2021, following the UK’s exit from the EU, the provisions of the EU F-gas Regulation apply in Great Britain as retained EU law (the “GB F-gas Regulation”). Northern Ireland remains subject to the EU’s F-gas legislation and system in accordance with the terms of the Protocol on Ireland / Northern Ireland.**

**This is not a review of the GB F-gas Regulation or the EU F-gas Regulation as it applies in NI. The GB F-gas Regulation includes a separate requirement to review its provisions and publish a comprehensive report based on that review by no later than 31 December 2022.**

The EU F-gas Regulation came into force on 1 January 2015, replacing the previous F-gas Regulation No. 842/2006. The EU F-gas Regulation requires a 79% cut in the use of HFCs between 2015 and 2030 in order to mitigate climate change. The Regulation does this by phasing down the amount of HFCs that can be placed on the EU market through allocating steadily reducing quotas to HFC producers and importers. This quota allocation process is the main mechanism by which the UK (as part of the EU for the period that this review covers) meets its international obligations to phase down HFCs under the Kigali Amendment to the United Nations Montreal Protocol, which came into force in 2019.

The EU F-gas Regulation also bans F-gases in certain applications and sets requirements for leak checks, leakage repairs and recovery of used gas. In addition, all technicians handling F-gases must be trained in their safe use and have the relevant qualifications and certification.

The EU F-gas Regulation requires Member States to “take all measures necessary” to ensure the Regulation is implemented and to apply “effective, proportionate and dissuasive” penalties. The domestic Fluorinated Greenhouse Gases Regulations 2015 S.I. 2015/310 as amended by the F-gas (Amendment) Regulations 2018 S.I. 2018/98 (the “domestic F-gas Regulations 2015”) enable the UK to comply with that duty by: providing the powers for authorised persons to carry out enforcement; prescribing offences and penalties including the introduction of civil sanctions; and designating certification and training bodies. The domestic F-gas Regulations 2015 cover Great Britain and extend to Northern Ireland only in so far as they deal with import and export controls and trade with any place outside the United Kingdom. Northern Ireland has separate domestic F-gas legislation that introduces offences and penalty provisions designed to comply with the requirements of the EU F-gas Regulation.

Regulation 32 of the domestic F-gas Regulations 2015 requires that a review of its provisions is undertaken. This report meets that requirement.

This review assesses the provisions of the domestic F-gas Regulations 2015 that were introduced in 2015 and subsequently amended in 2018. Enforcement data and intelligence and a targeted stakeholder survey demonstrate how the Regulations are working currently and highlight areas where potential improvements could be made. Broadly, the review concludes that the domestic F-gas Regulations 2015 are working well and recommends keeping the Regulations at this moment in time. However, some points raised by stakeholders during this review will be considered within the wider separate review of the GB F-gas Regulation due by no later than 31 December 2022. This will ensure any changes to both the domestic F-gas Regulations 2015 and the GB F-gas Regulation are streamlined and work together going forward.

## Policy Objectives

The primary objectives of the EU F-gas Regulation are to reduce emissions of F-gases to help meet the EU’s wider commitments on tackling climate change and to meet international obligations under the Kigali Amendment to the UN Montreal Protocol regarding HFC use. It will achieve that by:

- a) Gradually phasing down the amount of HFCs that can be placed on the EU market through a quota system that specifies the amounts of HFCs that individual companies can place on the market. The amount of quota issued to companies is cut in a series of steps, starting with a 7% reduction in 2016 and reaching a 79% cut by 2030;
- b) Bans on the use of F-gases in a number of specific applications, relating to new equipment;

- c) A ban on those F-gases with very high global warming potentials used for the servicing of certain types of existing refrigeration equipment;
- d) Obligations on leak checking and repairs, F-gas recovery and technician training.

The broad objective of the domestic F-gas Regulations 2015 is to implement and enforce the EU F-gas Regulation. The specific provisions of the domestic F-gas Regulations 2015 include:

- A power for customs officers to ask for proof that import is lawful under the EU F-gas Regulation, with a power to impound or dispose of the product if that proof is not provided.
- Appointment of enforcement bodies: the Environment Agency, Scottish Environment Protection Agency, Natural Resources Wales, the Department for Agriculture, Environment and Rural Affairs (DAERA), local authorities, and port health authorities. Also, the Secretary of State and Scottish and Welsh Ministers, with a power for them to appoint others to carry out enforcement duties.
- A power for the enforcement bodies to issue enforcement notices for failure to comply with requirements of the EU F-gas Regulation.
- A power for authorised persons to enter premises (except residential premises) to carry out inspections, take samples, seize and/or dismantle equipment, question staff, examine records or serve a notice requiring specified information, in order to enforce the provisions of the Regulation.
- Appointment of the certification and attestations bodies who issue the qualifications for operators and engineers as required by the EU F-gas Regulation, and renewal of the power for the Secretary of State to appoint others as needed.
- A requirement that those bodies provide details of certificates/attestations issued and other information requested by the Secretary of State in order for the UK to comply with the EU F-gas Regulation requirement to notify the Commission of certification and training programmes.
- An obligation on employers to ensure employees are properly certified as required by the EU F-gas Regulation.
- Offences and penalties for breaching certain provisions of the EU F-gas Regulation or failing to comply with a compliance notice.
- A requirement that the Secretary of State review the domestic F-gas Regulations 2015 at least every 5 years to ensure they are meeting objectives.

The F-gas (Amendment) Regulations 2018 S.I 2018/98 (the “domestic F-gas (Amendment) Regulations 2018”) were introduced to:

- Enable enforcement of five subsequent European Commission Implementing Regulations introduced to support the EU F-gas Regulation.
- Replace all but one of the existing thirteen criminal sanctions with civil sanctions for infringements of the EU F-gas Regulation from April 2018 in England, Scotland and offshore installations in marine areas.
- Enable HMRC to share customs data with the relevant enforcement bodies in order to check for unlawful imports of F-gases. Arrangements enabling this will include

applying an existing criminal offence for unlawful sharing of the HMRC data, where this amounts to personal information, to the staff of the relevant enforcement bodies.

- Enable the Secretary of State to appoint the bodies which undertake certification, evaluation and attestation of F-gas handlers, without having to specify the names of the certification, evaluation and attestation bodies in the Regulations themselves.
- Clarify how the domestic F-gas Regulations 2015 apply in certain cases and the specific powers of certain enforcement authorities.
- Update certain names and definitions.

These measures are considered the minimum needed for compliance with the EU F-gas Regulation. They do not “gold plate” or extend the substance of the EU F-gas Regulation in any way.

## Review Approach

In determining the Post Implementation Review (PIR) approach for the domestic F-gas Regulations 2015, the following aspects have been considered:

- The Estimated Annual Net Direct Cost to Business (EANDCB) predicted by the original cost/benefit analysis of the domestic F-gas Regulations 2015 was between £9,731-£55,984. This is considerably below the de-minimis +/-£5m threshold required for independent scrutiny. These estimates were based on conservative assumptions, meaning that a further cost/benefit analysis would produce estimates that are within the same order-of-magnitude as the original cost/benefit analysis (and would need to be nearly 100 times greater than the original cost/benefit analysis estimated to cross the de minimis threshold).
- A full in-depth review of the GB F-gas Regulation is due by no later than 2022. This review will provide a comprehensive assessment of the impacts of the GB F-gas Regulation, as well as provide a more detailed analysis of future policy options and recommendations for the regulations. This comprehensive review may result in new provisions which would require additional amendments to the domestic F-gas Regulations 2015.

## Evidence sources and data collection methods

Evidence for this review was drawn from two information sources: data and intelligence collected and provided directly by the enforcement authorities responsible for implementing the EU’s F-gas system in the UK; and a stakeholder engagement survey.

The intelligence and data received from the enforcement authorities provided insights on the enforcement approach, including the use of powers provided under the domestic F-gas Regulations 2015. The stakeholder engagement survey (see Annex B) sought to gather

views on how the domestic F-gas Regulations 2015 were working, whether there had been any undue burden or cost, and whether the regulations could be improved. The survey included five questions, two of which were to establish the type of stakeholder responding and the country to which their response was relevant. The three questions which informed the conclusions of the PIR were:

- To what extent are the existing domestic F-gas Regulations 2015 effectively working? Have the objectives successfully been achieved?
- Were there any unexpected implications or consequences from the domestic F-gas Regulations 2015?
- Could we revise the domestic F-gas Regulations 2015 to reduce undue cost or burden to business?

The survey targeted stakeholders identified as the key trade associations representing businesses operating in the relevant F-gas sectors, as well as certification bodies, enforcement authorities and relevant non-governmental organisations (NGOs).

## Enforcement Approach

Enforcement in England is undertaken by the Environment Agency and local authorities. The Scottish Environment Protection Agency, Natural Resources Wales and the Department for Agriculture, Environment and Rural Affairs (DAERA) (Northern Ireland Environment Agency), Northern Irish district councils, and local authorities have enforcement powers in their respective parts of the UK. Enforcement for offshore installations is undertaken by the Defra Secretary of State regarding English and Welsh installations and Northern Irish installations carrying out certain activities, Scottish Ministers regarding Scottish installations and DAERA regarding Northern Irish installations for other specific activities not covered by the Defra Secretary of State. In addition, Her Majesty's Revenue and Customs (HMRC) is responsible for enforcement in respect of imports and specialist enforcement officers undertake the work on offshore installations.

The Government's aim is to ensure that enforcement measures are sufficient to achieve the overall objectives of the EU F-gas Regulation which are to reduce F-gas emissions and to meet international obligations regarding HFC use. We also aim to keep costs to businesses and the public no higher than is necessary to meet those objectives. In order to achieve that balance, the UK enforcement authorities take a risk-based approach, prioritising in particular where the impact from non-compliance on the effectiveness of the regulations is likely to be highest. A risk-based approach produces a good level of compliance without excessive burdens on businesses, and ensures resources are used effectively and that any subsequent enforcement actions are proportionate.

## Implementation of the Regulations

The domestic F-gas Regulations 2015 set out the powers and sanctions available to the enforcement authorities in the UK. The below information was provided by the



enforcement authorities and covers their activities since 2015 until March 2020 (the period covered by this review). The figures referenced cover: a) alleged breaches of the quota, licensing and reporting system administered by the European Commission, referred to here as 'EU system related breaches' such as quota breaches and reporting or verification failures, and b) other alleged breaches such as failures in relation to leak detection and certification.

Enforcement authorities identify alleged breaches from a variety of sources in relation to UK-based businesses or those operating in the UK. The European Commission, trade bodies, members of the public and NGOs all report allegations of breaches to the enforcement authorities. Enforcement authorities share relevant intelligence and data with other appropriate enforcement authorities across the UK where appropriate for enforcement purposes. Enforcement authorities may also discover potential breaches as part of their own compliance work.

Since the implementation of the Regulations in 2015, the number of breaches associated with the Regulations has fluctuated but overall increased. In 2015, there were 66 alleged breaches, all of which were non-EU system related breaches, given this was the first year of the quota system. All 66 were closed without the need for formal action. For these cases, either no breach was confirmed to have taken place and/or advice or guidance was provided as required.

In 2016 and 2017, there were some breaches of the quota system where businesses imported more than their quotas allowed. In 2016, the two alleged quota breaches ranged in quantity from just over a hundred to several thousand tonnes CO<sub>2</sub> equivalent. The five quota breaches in 2017 ranged from over 2,000 to several thousand tonnes CO<sub>2</sub> equivalent. These companies received automatic quota penalties of 200% of their quotas, however no additional enforcement action has been taken to date. The remaining 35 breaches in 2016 and 39 breaches in 2017 were investigated and closed without formal action.

Since 2018 in particular, there has been a rise in the number of allegations of breaches recorded. This increase coincides with the point at which civil sanctions were introduced by the domestic F-gas (Amendment) Regulations 2018, as well as the second HFC phase-down step and a number of other changes brought in by EU implementing regulations, including the requirement for equipment importers to hold quota authorisations and report. These changes introduced a number of offences which did not previously exist.

In 2018, 23 alleged quota authorisation breaches ranged between tens to thousands of tonnes CO<sub>2</sub> equivalent. There were 60 alleged verification and reporting breaches, however no further action was required. All the EU system related breaches were covered by criminal proceedings as they happened before 1 April 2018.

In 2019, 19 alleged quota authorisation breaches ranged between low hundreds to thousands of tonnes CO<sub>2</sub> equivalent. There were 96 verification and reporting breaches, 50 of which were resolved while the remainder remain open.

The UK enforcement authorities have issued 28 information notices and 4 enforcement notices in the timescale of this review. The first enforcement notices occurred in 2019, following the increase in types of breaches covered by the domestic F-gas (Amendment) Regulations 2018, and therefore an increase in the number breaches that warranted this action.

The other significant change brought in by the domestic F-gas (Amendment) Regulations 2018 is the ability for HMRC to share data with the UK enforcement authorities. Such data includes information on imports of bulk HFCs and equipment containing HFCs. Using this data, enforcement authorities can cross check importers against the EU HFC registry to determine if the imports are in accordance with the regulations.

Reviewing this data has identified some imports/importers that need further investigation. These investigations are high priority given such importers could be operating completely outside the quota system and therefore have a significant impact on the environment as well as harming the interests of legitimate businesses. In 2019, the data shared by HMRC highlighted potential breaches amounting to significant quantities of CO<sub>2</sub> equivalent. Investigations into these breaches are ongoing and are covered in the figures mentioned above.

The data the enforcement authorities obtain from HMRC covers a broad range of commodity codes, which means that enforcement authorities can identify errors in the codes used on customs declarations that may highlight additional imports for investigation.

The enforcement authorities also carry out pro-active and reactive investigations into sales of gas and equipment online, to ensure that businesses are complying with the requirements of the legislation. This includes monitoring internet market places to identify illegal products or activities.

Between February 2018 and March 2020, the enforcement authorities have questioned 755 listings from internet market places, amounting to over 20,000 tonnes CO<sub>2</sub> equivalent. The main HFCs being advertised are R404a, R134a and R410a. These investigations have led to either the removal of, or required changes to, the listings to ensure that the businesses are compliant with the regulations.

In September 2020, enforcement authorities issued seven civil penalties amounting to more than £1,000,000 to an organisation for failing to obtain quota before placing HFCs on the market, for failing to report annual activity to the relevant authority, and for failing to keep records in accordance with the legislation. These breaches took place in 2018 and 2019.

## Stakeholder survey findings

10 stakeholders responded to the survey, of which there were 5 trade associations, 2 certification bodies, 2 enforcement authorities and 1 NGO. These stakeholders responded to the survey questions as follows:

**To what extent are the existing domestic F-gas Regulations 2015 effectively working? Have the objectives (set out above) successfully been achieved?**

<i>Response</i>	<i>No. of responses</i>
Very counterproductive	
Quite counterproductive	
No effect either way	1
Quite successful	8
Very successful	

One respondent did not provide an answer to this question.

**Were there any unexpected implications or consequences from the domestic F-gas Regulations 2015?**

<i>Response</i>	<i>No. of responses</i>
Many negative unexpected consequences	
Some negative unexpected consequences	3
Nothing unexpected	6
Some positive unexpected outcomes	1
Many positive unexpected outcomes	

**Could we revise the domestic F-gas Regulations 2015 to reduce undue cost or burden to business?**

<i>Response</i>	<i>No. of responses</i>
Advise significant revisions	1
Advise some revisions	6
No revisions needed	2
Advise against revisions	
Strongly advise to avoid revisions	1

Feedback provided by stakeholders through the survey has been summarised against the survey question headings below. The views reported below are exclusively those of stakeholders.

## Effectiveness of the Regulations

The stakeholders who responded to the survey believed the domestic F-gas Regulations 2015 have been quite successful in achieving their original objectives.

Respondents recognised that the domestic F-gas Regulations 2015 and subsequent amendments in 2018 were essential to enable enforcement authorities to enforce against the changes brought about by the EU F-gas Regulation. They also recognised that the introduction of civil sanctions by the domestic F-gas (Amendment) Regulations 2018 provided a more proportionate approach for dealing with many of the breaches of the regulations, instead of criminal sanctions for every offence.

Enforcement authorities who responded to the survey stated that the ability for HMRC to share customs data with them has been valuable in supporting investigations. It has helped enforcement authorities to identify businesses importing HFCs into the UK from outside the EU, validate information about imports provided by businesses and to corroborate reported data.

One NGO stated that the provisions of the domestic F-gas Regulations 2015 related to customs officers' powers and enforcement bodies have not been sufficient to stem the tide of illegal HFC trade. The NGO also suggested that the provisions relating to offences and penalties for breaching certain provisions of the EU F-gas Regulation or failing to comply with a compliance notice, have been insufficient to deter illegal HFC trade. While they agree with including civil sanctions to facilitate prosecution, they suggested adopting criminal sanctions in addition to civil sanctions in order to enhance deterrence.

Industry stakeholders expressed concern that whilst suitable powers may be available for enforcement activities to be carried out, those carrying out the enforcement may not have had sufficient instruction or training to apply these powers as effectively as required to prevent unlawful imports.

For the offshore installation hydrocarbon industry, the relevant enforcement authority stated that the domestic F-gas Regulations 2015 are working effectively. They confirmed that while civil sanctions have largely replaced the criminal offences, to date they have not resorted to their use.

Respondents suggested that the provisions relating to certification, evaluation and attestation have been generally effective with high levels of industry compliance.

## Implications and unintended consequences

Most stakeholders indicated that no unexpected implications or consequences arose from the implementation of the Regulations.

However, some negative consequences were highlighted. For example, one respondent stated that, through investigations by enforcement authorities, it had become apparent that businesses may be able to benefit financially from breaking the law as the financial gain available for businesses importing HFCs without complying with the provisions of the EU F-gas Regulation could exceed the maximum civil sanction set out in the domestic F-gas Regulations 2015 due to the saleable value of HFCs.

Another respondent stated that enforcement authorities have started to see that suspected non-compliant companies trying to dissolve once notified of potential enforcement action, which could be an attempt to avoid paying penalties.

One enforcement authority noted the cost impact of establishing processes for introducing civil sanctions. However, it was acknowledged that this cost was not unexpected.

## Burden to business and revisions

Views relating to potential revisions to the domestic F-gas Regulations 2015 were more varied.

One enforcement authority suggested that some revisions would enable them to be more effective in carrying out their duties. This included additional powers for enforcement activities, including the explicit ability to seize and detain items, or require their disposal. Other suggested revisions included to provide for other appropriate enforcement sanctions, in particular the return of the option for criminal sanctions, in addition to civil sanctions, for the most serious breaches. While providing these suggestions, the enforcement authority also stated that they had not seen evidence of undue cost or burden to businesses as a result of the domestic F-gas Regulations 2015, and therefore no revisions were required to address such matters. This was also the view of a number of key stakeholders, including an NGO and in industry.

Industry stakeholders also argued that UK businesses had already invested heavily and successfully to ensure compliance with the domestic F-gas Regulations 2015. Therefore, they could not identify any areas of the Regulations that required revision to lessen the burden to business without weakening compliance and effectiveness of implementation.

Respondents did advise some further revisions, however most of the suggestions related to provisions in the EU F-gas Regulation as opposed to the domestic F-gas Regulations 2015. Such revisions included: to introduce mandatory training and certification in low GWP alternative refrigerants; to accelerate the HFC phase-down; to introduce bans and containment measures for SF<sub>6</sub>-based switchgear; and to clarify existing definitions and provisions. This review is focused only on the domestic F-gas Regulations 2015, so these suggestions have not been considered further here. However, they have been recorded and will be considered during the comprehensive review of the GB F-gas Regulation which is due to be complete by no later than end of 2022. Annex C provides a full list of stakeholder suggestions considered outside of the scope of this review.

# Summary of suggestions and responses

Table 2 summarises suggestions put forward by stakeholders that relate to the provisions of the domestic F-gas Regulations 2015 and therefore fall within the scope of this review.

**Table 2 – Summary of suggestions**

Stakeholders' suggestions
Return of the option for criminal sanctions, in addition to civil sanctions for the most serious breaches.
Additional regulatory body powers for enforcement activities, including the explicit ability to seize and detain items, or require their disposal.
Mandatory collection of proof that engineers are employed and not contractors as only employed engineers can be attached to a company F-gas Certificate.
Industry to be consulted or at least advised on the appointment of future certification and attestation bodies.
Clarification on the application of the regulation to onshore and offshore sites and offices.

Given this is a light touch review to assess the effectiveness of the domestic F-gas Regulations 2015 and to determine whether revisions could be made to reduce undue cost or burden on business, the above policy suggestions of potential improvements to the regulations will not receive specific analysis or an official response at this moment in time.

The comprehensive review of the GB F-gas Regulation could result in policy changes that would need legislative amendments to that Regulation. Given that exercise has commenced, we consider it prudent to look in detail at stakeholder suggestions provided as part of this review of the domestic F-gas Regulations 2015 alongside the outcomes of the review of the GB F-gas Regulation. This holistic approach will ensure that changes to both Regulations work together. As part of that coordinated approach, we will also be able to consider the other suggestions provided by stakeholders in response to this review that related to the EU F-gas Regulation rather than to the domestic F-gas Regulations 2015.

## Conclusions

The domestic F-gas Regulations 2015 are considered overall to be successful in achieving their original objectives. Only a small number of unexpected consequences have been identified as having arisen from their implementation. Stakeholders regard the regulations as implementing the EU F-gas Regulation well, although some revisions were suggested. From the enforcement data and intelligence provided by the UK enforcement authorities, it was clear that the number of alleged breaches increased from 2015 to 2020, as did the incidence of enforcement activities. The first enforcement notices occurred in 2019, following the increase in types of breaches covered by the domestic F-gas (Amendment) Regulations 2018, and therefore an increase in the number breaches that warranted this

action. Between February 2018 and March 2020, enforcement authorities questioned 755 listings from internet market places, amounting to over 20,000 tonnes CO<sub>2</sub> equivalent. These investigations have led to either the removal of, or required changes to, the listings to ensure that the businesses are compliant with the regulations. In response to the stakeholder engagement survey, respondents recommended some revisions relevant to the domestic F-gas Regulations 2015, including the introduction of other appropriate sanctions, such as criminal penalties, and additional enforcement powers for UK enforcing authorities. We will explore these suggested revisions further in due course. Many of the other suggested revisions fell outside the scope of this review, relating to areas of wider government policy, legislative powers or competence of the EU. The comprehensive review of the GB F-gas Regulation could result in policy changes that would require legislative amendments to that Regulation. To ensure any changes to both the domestic F-gas Regulations 2015 and the GB F-gas Regulation are streamlined and work together, we will consider stakeholder suggestions provided as part of this review alongside the outcomes of the review of the GB F-gas Regulation.

## Limitations of this review

Only a limited number of stakeholders took part in the survey. In total, 10 responses were received. The stakeholder survey took place during the COVID-19 pandemic, which may have been a contributing factor to the limited response rate.

# Annex A: Post Implementation Review

<b>Title:</b> The Fluorinated Greenhouse Gases Regulations 2015 <b>PIR No:</b> 2015/310 <b>Original IA/RPC No:</b> N/A <b>Lead department or agency:</b> Defra <b>Other departments or agencies:</b> N/A  Contact for enquiries: fgas@defra.gov.uk	<b>Post Implementation Review</b>
	<b>Date:</b> 05/10/2021
	<b>Type of regulation:</b> Domestic
	<b>Type of review:</b> Statutory
	<b>Date measure came into force:</b> 19/03/2015
	<b>Recommendation:</b> Keep
	<b>RPC Opinion:</b> N/A

## 1. What were the policy objectives of the measure? (Maximum 5 lines)

The primary objective of the Regulations was to implement the directly applicable EU F-gas Regulation (EU 517/2014) (the EU F-gas Regulation) and to apply “effective, proportionate and dissuasive” penalties. More specifically, to provide the powers for authorised persons to carry out enforcement; prescribe offences and apply penalties, including the introduction of civil sanctions in 2018; and designate certification and training bodies.

This review covers the period March 2015 to March 2020 when the whole of the UK operated under the directly applicable EU F-gas Regulation. Since 1 January 2021, the EU F-gas Regulation applies in Great Britain as ‘retained EU law’ (the “GB F-gas Regulation”) and remains directly applicable in Northern Ireland.

## 2. What evidence has informed the PIR? (Maximum 5 lines)

The review utilised two information sources: enforcement data and intelligence provided by the UK enforcement authorities; and a stakeholder engagement survey (via email). The survey targeted key stakeholders across the various industry sectors and different types of bodies, including certification bodies, trade associations, enforcement authorities and NGOs.

## 3. To what extent have the policy objectives been achieved? (Maximum 5 lines)



The survey responses clearly indicate that the Regulations have been quite successful in achieving the original objectives. The introduction of civil sanctions in 2018 (in England and Scotland only) was viewed as a more proportionate approach for dealing with many breaches of the regulations. Enforcement authorities stated that HMRC's ability to share customs data has been valuable in supporting investigations. The provisions relating to the certification, evaluation and attestation have been effective with high industry compliance.

Sign-off for Post Implementation Review: Chief economist/Head of Analysis and Minister

***I have read the PIR and I am satisfied that it represents a fair and proportionate assessment of the impact of the measure.***

Signed: **Jo Churchill**

Date: 21/10/2021

### **Further information sheet**

Please provide additional evidence in subsequent sheets, as required.

#### **4. What were the original assumptions? (Maximum 5 lines)**

Costs to companies if they act unlawfully were not considered as part of the original cost/benefit analysis. Due to the uncertainty around the grade of employees involved in enforcement activities across the UK, a maximum wage rate of £20.17 per hour for a Corporate Manager/Director was selected to avoid underestimation (uplifted to £26.63/hour in accordance with 2013 prices and to account for non-wage costs).

#### **5. Were there any unintended consequences? (Maximum 5 lines)**

Most stakeholders indicated that no unexpected consequences arose from the implementation of the Regulations. Some negative consequences raised in response to the survey included: the financial gain from the breaching regulations could exceed the maximum civil sanction set out in the Regulations; and that suspected non-compliant companies may try to dissolve once notified of potential enforcement action to attempt to avoid paying penalties.

#### **6. Has the evidence identified any opportunities for reducing the burden on business? (Maximum 5 lines)**

Some stakeholders strongly advised against revisions and suggested no revisions would reduce burden on businesses. Given these are enforcement regulations, compliant businesses should not face undue costs. Some stakeholders provided feedback on areas where they felt revisions could be introduced to improve the regulations, such as the introduction of other appropriate sanctions and additional enforcement powers. Many of the suggestions fell outside the scope of this review, touching on areas relating to wider F-gas policy or EU competence. All suggestions will be considered in future policy development and, where relevant, as part of the comprehensive review of the GB F-gas Regulation due by no later than 2022.

**7. For EU measures, how does the UK's implementation compare with that in other EU member states in terms of costs to business? (Maximum 5 lines)**

N/A - not required by review obligation.

# Annex B: Stakeholder Engagement Survey

## Regulation Review Question Sheet

<b>Regulation name and link</b>
The Fluorinated Greenhouse Gases Regulations 2015 S.I. 2015/310 <a href="http://www.legislation.gov.uk/ukxi/2015/310">http://www.legislation.gov.uk/ukxi/2015/310</a>
<b>Objectives of the policy</b>
<p>Fluorinated gases (F-gases), including HFCs (hydrofluorocarbons), PCFs (perfluorocarbons) and SF6 (sulphur hexafluoride), were largely introduced as replacements to ozone-depleting substances (ODS) which damage the ozone layer. Although they do not damage the ozone layer, F-gases are powerful greenhouse gases. They are used mainly in refrigeration, air-conditioning, insulation foams, electrical equipment, aerosol sprays, medical inhalers, solvents and fire extinguishers. Emissions occur through leakage during the manufacture, operation and disposal of products, contributing to climate change.</p> <p>The EU F-gas Regulation No. 517/2014 (the “EU F-gas Regulation”) which came into force in the UK on 1 January 2015, is designed to reduce emissions of F-gases by 80% by 2035. It will achieve that by:</p> <ol style="list-style-type: none"><li>Gradually phasing down of the amount of F-gases that can be placed on the EU market via a HFC quota system.</li><li>Bans on the use of F-gases in a number of specific applications, relating to new equipment.</li><li>A ban on those F-gases with very high global warming potentials used for the servicing of certain types of existing refrigeration equipment.</li><li>Some strengthening of existing obligations on leak checking and repairs, F-gas recovery and technician training.</li></ol> <p>The UK is currently legally bound by the EU F-gas Regulation, Article 25 of which places a duty on EU Member States to “lay down the rules on penalties applicable to infringements of this Regulation and take all measures necessary to ensure that they are implemented”.</p> <p>The domestic Fluorinated Greenhouse Gases Regulations 2015 S.I 2015/310 as amended by the F-gas (Amendment) Regulations 2018 (the “domestic F-gas Regulations 2015”) enable the UK to comply with that duty.</p> <p>The specific objectives of the domestic F-gas Regulations 2015 include:</p> <ul style="list-style-type: none"><li>A renewal of the existing power for customs officers to ask for proof that import is lawful under the EU Regulation, with a power to impound or dispose of the product if that proof is not provided.</li><li>Re-appointment of enforcement bodies: The Environment Agency, Scottish Environment Protection Agency, Natural Resources Wales, the Department of the Environment (Northern Ireland), local authorities, port health authorities, the Secretary of State and Scottish and Welsh Ministers, with a power for them to appoint others to carry out enforcement duties.</li><li>A power for the enforcement bodies to issue enforcement notices for failure to comply with requirements of the EU Regulation.</li><li>Renewal of the power for authorised persons to enter premises (except residential premises) to carry out inspections, take samples, seize and/or dismantle equipment, question staff, examine records or serve a notice requiring specified information, in order to enforce the provisions of the Regulation.</li></ul>

- Re-appointment of the certification and attestations bodies who issue the qualifications for operators and engineers required by the EU Regulation, and renewal of the power for the Secretary of State to appoint others if necessary.
- Renewal of the requirement that those bodies provide details of certificates/attestations issued and other information requested by the Secretary of State in order for the UK to comply with the EU Regulation requirement to notify the Commission of certification and training programmes.
- Renewal of the obligation on employers to ensure employees are properly certified as required by the EU Regulation.
- Renewal of offences and penalties for breaching certain provisions of the EU Regulation or failing to comply with a compliance notice.
- A requirement that the Secretary of State review the Regulations at least every 5 years to ensure they are meeting objectives.

*[The following were introduced by the F-gas (Amendment) Regulations 2018]*

- Enable enforcement of five subsequent EU Commission Implementing Regulations introduced to support the main EU F-gas Regulation 2014.
- Replace all but one of the existing thirteen criminal sanctions with civil penalties for infringements of the EU Regulation from April 2018, in England, Scotland and offshore installations in marine areas.
- Enable HMRC to share customs data with the relevant enforcement bodies in order to check for unlawful imports of F-gases. This data sharing agreement will include applying an existing criminal offence for unlawful sharing of the HMRC data, where this amounts to personal information, to the staff of the relevant enforcement bodies.
- Enable the Secretary of State to appoint the bodies which undertake certification, evaluation and attestation of F-gas handlers, without having to specify the names of the certification, evaluation and attestation bodies in in the Regulations themselves.
- Clarify how the Regulations apply in certain cases and the specific powers of certain enforcement authorities.
- Update some names and definitions.

These measures are considered the minimum needed for compliance with the EU F-gas Regulation. They do not “gold plate” or extend the substance of the EU Regulation in any way.

**Please consider the following questions and provide a single consolidated response on behalf of your organisation / association / body.**

Survey questions:

<b>1 Are the following responses on behalf of a regulatory body, certification body, industry body/trade association, NGO, or other? Please indicate below.</b>
<ol style="list-style-type: none"><li>1. Regulatory body</li><li>2. Certification body (If yes, which sector?)</li><li>3. Industry body/ trade association (If yes, which sector?)</li><li>4. NGO</li><li>5. Other (If yes, please state)</li></ol>
<b>2 Are the following responses relevant to the UK in its entirety or a specific country or countries? Please indicate below.</b>
<ol style="list-style-type: none"><li>1. UK</li><li>2. England</li><li>3. Wales</li><li>4. Scotland</li><li>5. Northern Ireland</li></ol>
<b>3 To what extent are the existing domestic F-gas Regulations 2015 effectively working? Have the objectives (set out above) successfully been achieved?</b>
<ol style="list-style-type: none"><li>1. Very counterproductive</li><li>2. Quite counterproductive</li><li>3. No effect either way</li><li>4. Quite successful</li><li>5. Very successful</li></ol>
Comment:
<b>4 Were there any unexpected implications or consequences from the domestic F-gas Regulations 2015?</b>
<ol style="list-style-type: none"><li>1. Many negative unexpected consequences</li><li>2. Some negative unexpected consequences</li><li>3. Nothing unexpected</li><li>4. Some positive unexpected outcomes</li><li>5. Many positive unexpected outcomes</li></ol>
Comment:
<b>5 Could we revise the domestic F-gas Regulations 2015 to reduce undue cost or burden to business?</b>
<ol style="list-style-type: none"><li>1. Advise significant revisions</li><li>2. Advise some revisions</li><li>3. No revisions needed</li><li>4. Advise against revisions</li><li>5. Strongly advise to avoid revisions</li></ol>
Comment:

## Annex C: Stakeholder suggestions not relevant to the Regulations

Question 5 of the survey asked stakeholders: “Could we revise the domestic F-gas Regulations 2015 to reduce undue cost or burden to business?”

Whilst the general view was that no revisions were needed to reduce undue burden or cost, a number of suggestions were provided by respondents. However, many of these fell outside of the remit of the domestic F-gas Regulations 2015, or outside of the scope of this PIR.

The suggestions outside the scope of this review are set out below. These suggestions will be considered in future policy development and, where relevant, as part of the comprehensive review of the GB F-gas Regulation due by no later than 2022.

**Table 3 - Stakeholder policy suggestions outside the scope of this PIR**

Stakeholders' suggestions
Extend the 2025 target for switchgear over 72.5kV, to enable further development of new technologies and development of industry standards.
Mandatory training / certification for handling natural refrigerants / low GWP alternatives and technologies. (This suggestion was put forward by a number of respondents.)
Mandatory training regarding the safe use of all refrigerant gases (not just F-gas).
Increase/enhance HMRC and Customs Officer instruction and training.
Strengthen the placing on the market prohibitions in Annex III of the EU F-gas Regulation, including immediate bans and prospective bans.
Adopt a robust real-time HFC licensing system which requires per shipment licences for all HFCs.
Introduce bans for high GWP hydronic heat pumps, including domestic ground-source heat pumps (GSHP), water-source heat pumps (WSHP), exhaust air heat pumps and monobloc air-source heat pumps (ASHP).
Strengthen the obligation on HFC-23 by-product destruction through a certification scheme; an additional reporting requirement; and restricting trade with other countries according to their compliance with / whether they have ratified the provision on HFC-23 by-product destruction in the Kigali Amendment.
Introduce bans and containment measures for SF <sub>6</sub> -based switchgear, including immediate bans and prospective bans. Also introduce further measures to address operational and end-of-life emissions from existing SF <sub>6</sub> -based switchgear, and emissions from the manufacturing of “related equipment” (gas insulated lines, bushings and instrument transformers).
Clarify outstanding interpretations relating to employer/sole trader obligations.

Clarify the maximum GWP for new standard type refrigeration systems. The GWP for all new standard type of refrigeration systems should have a GWP of <1000 (this is currently 2500) in some instances. Systems being installed now will be more future proof and not require gas changes or replacements in the future – this would save the industry future cost burdens.

Clarify in the regulations or related guidance, the activities that can be carried out by mechanical technicians and do not require F-gas trained and certificated personnel.

Potential revision to clarify and recognise the application of MARPOL Annex VI to ships in relation to the prohibition of any deliberate emissions of ozone-depleting substances (ODS).

Accelerate the HFC phase-down through advancing the 2024 and 2027 reduction steps and reducing the final step in 2030 to 5%.

Promote incentive schemes and public procurement for natural refrigerant alternatives and technologies and establish GWP thresholds.

Require producer responsibility schemes to internalise the costs of HFC recovery and promote compliance. The scheme should include certain minimum requirements on collection, reclamation, recycling, disposal facilities, equipment provision to certified technicians, reporting and awareness raising.