Department for Energy Security & Net Zero

FLUORINATED GREENHOUSE GASES

Guidance notes for the offshore hydrocarbon industry

September 2024

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About this Guidance

This revised Guidance is issued by the Offshore Petroleum Regulator for Environment & Decommissioning (OPRED). It is addressed to operators of production installations and non-production installation owners involved in offshore exploration, production and decommissioning activities on the United Kingdom Continental Shelf (UKCS) (referred to as “Operators” henceforth), and their service companies, and provides guidance on the F-gas regulations and how to implement them offshore.

While every effort has been made to ensure the accuracy and completeness of this Guidance, information may become out of date or may on occasion include errors. For example, links to department and Third-Party websites, which are provided for ease of reference, can break as a result of website changes. Please contact the department (opred@energysecurity.gov.uk) for clarification on any aspects of the Guidance.

The department will update / correct any information identified as outdated or erroneous at the time of the next revision of this Guidance.

Contents

Document control

Revision	Date	Comment
1	September 2016	First Issue
2	October 2016	Revised Guidance
3	September 2024	Revised Guidance to include amendments to regulations and inclusion of Civil Penalties

1.0 Introduction

Fluorinated greenhouse gases (F-gases) are man-made gases used in a range of industrial applications including refrigeration, air-conditioning, high voltage switchgear, heat pumps and fire protection systems. They are powerful greenhouse gases that contribute to climate change. The responsibilities placed on operators, and outlined in the following sections, are aimed at reducing emissions of F-gas.

The UK government's Net Zero Strategy published in October 2021 commits to completing a review of the F-gas regulation and assessing whether we can go further than the current requirements and international commitments, including by looking at what additional reductions in F-gas use can be made, to help the UK meet net zero by 2050.

This guidance is issued by the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED). OPRED, as part of the Department of Energy Security and Net Zero (DESNZ) is responsible for the environmental regulation of offshore oil and gas activities. This guidance affects any offshore oil and gas installations who use or service equipment that contains F-gases, for example refrigeration and air conditioning systems. In addition, any offshore oil and gas Operators who produce, import, export or sell F-gas or equipment containing F-gas must further refer to guidance produced by the Environment Agency (EA) and Department for Environment, Food & Rural Affairs (DEFRA).

This guidance further details the responsibilities of service companies who may be contracted to service relevant equipment. For the purposes of this guidance, DESNZ / OPRED shall be referred to as "the department".

2.0 Legislative Background

The F-gas legislation applies to those who:

- manufacture, sell, use or service equipment that contains F-gas,
- produce or sell F-gas, or
- import or export F-gas, or equipment containing F-gas, to or from the UK.

The relevant regulations are

- Regulation (EU) No 517/2014 on fluorinated greenhouse gases (“the EU Regulation”)
- the Fluorinated Greenhouse Gases Regulations 2015 (SI 2015 / 310)
- The Fluorinated Greenhouse Gases (Amendment) Regulations 2018 (SI 2018 / 98)

The EU Withdrawal Act 2018 (EUWA) retained the EU’s F-gas legislation in UK law though subsequent regulations were introduced to differentiate between the legislative arrangements in Great Britian and those in Northern Ireland[1].

In this guidance, all the above are together referred to as the regulations. This guidance is only intended to summarise the requirements in the regulations and in order to ensure compliance, operators should also refer to the regulations directly.

The regulations allow for the appointment of inspectors whose responsibilities are to investigate whether the requirements, restrictions or prohibitions imposed by or under the regulations have been or are being complied with. Inspectors within the offshore environmental inspectorate of OPRED are appointed by the Secretary of State to act on his behalf. Further information can be found on the OPRED website.

[1] SI 2019 / 281 & SI 2020 / 1616

3.0 F-gas Requirements

3.1 Responsibilities

The EU Regulations define undertakings and specify the obligations that fall to them. For the purposes of offshore oil and gas installations this includes those who:

- are the operator of equipment that contains, or whose functioning relies upon, fluorinated greenhouse gases (typically the installation operator or owner of a non-production installation)
- install, service, maintain, repair, check for leaks or decommission equipment that contains, or whose functioning relies upon, fluorinated greenhouse gases.

Operators may use service companies to install, service, maintain, repair and decommission relevant equipment. Irrespective of the involvement of a service company, Operators remain responsible for:

- Identification of equipment containing F-gas
- Preventing the release of F-gas
- If a release occurs, taking all measures to minimise the release
- Using qualified technicians to carry out any work on equipment containing F-gas
- Leak checking and installing and checking leak detection equipment
- Repairing any leaks found
- Recovering F-gas when disposing of equipment
- Keeping records and reporting to OPRED as per EEMS atmospheric guidance and IRS guidance.

Service companies who are contracted by the Operator to undertake F-gas activities must follow existing F-gas regulations and may be held responsible for any failings to meet the requirements.

Any non-production installations (NPI) working on the UKCS / in a UK port or during transit within the UKCS must follow this guidance and report their F-gas inventories and losses through the Environmental and Emissions Monitoring System (EEMS).

For guidance for manufacturers, contractors and others that make, sell or handle F-gases and associated equipment please refer to the EA and DEFRA website.

3.2 Identification of F-gases

Many refrigeration, fire protection, air conditioning and heat pump systems contain F-gases and Operators and / or service companies operating, servicing or maintaining equipment containing F-gases must meet the requirements set out in the regulations.

In order to meet these requirements Operators must identify all equipment that contains F-gas that is under the scope of the regulations.

Operators should refer to the list of F-gases covered by the regulations. To find out if your equipment contains one of the F-gases listed you can:

- Check the manual for the piece of equipment and/or the label on the equipment
- Speak to the company who installed the equipment

3.3 Calculation of Carbon dioxide equivalent for F-Gases

Carbon dioxide (CO2) equivalent is a measure of how much a gas contributes to global warming, relative to CO2.

To calculate the CO2 equivalent of a quantity of F-Gas you must multiply the mass of the gas (in tonnes), by the gas' global warming potential (GWP).

GWPs for F-gases can be found in the list of F-gases.

For example, the GWP of HFC 404A is 3,922. Therefore, the tonnes CO2 equivalent of 10kg of HFC 404A is calculated as follows:

Mass (in tonnes) of F-gas multiplied by GWP of F gas

= (10/1,000) * 3,922

= 39.2 tonnes CO2 equivalent

Note: the GWPs used are based on AR4 values in order to align and report under the UN Montreal Protocol which the F-gas regulations implement.

3.4 Using qualified technicians

Article 3(4) of the EU regulation requires that only qualified technicians carry out work on equipment containing F-gas, including:

- installation
- testing for leaks
- general maintenance including servicing and repair
- recovery

Operators are responsible for checking that service companies are certified and technicians working on their equipment are qualified where required by the regulations.

3.4.1 Specific qualification requirements for common equipment found on offshore installations

Stationary refrigeration and air conditioning systems including heat pump (RACHIP) systems

Any person involved in carrying out the below activities on a RACHIP system must have qualifications to:

- Install new systems
- General maintenance including servicing and repair
- Leak checking
- Recovery of F-gas
- Decommissioning and disposal of systems

Qualifications to work on refrigeration or stationary air conditioning and heat pump systems have 4 different categories. The category will depend on the tasks to be carried out and are as follows:

- Category 1 certificate holders can carry out all activities
- Category 2 certificate holders can install, repair, maintain, service and recover refrigerant from systems that contain less than 3kg of F-gas or less than 6kg of F-gas if hermetically sealed
- Category 3 certificate holders can recover refrigerant systems that contain less than 3kg of F-gas or less than 6kg of F gas if hermetically sealed
- Category 4 certificate holders can check equipment for leaks if they don’t break into the refrigeration circuit

Individuals must hold a qualification from an accredited organisation (or an equivalent qualification that an EU member state recognises). Refer to EA & DEFRA’s website for up-to-date qualification bodies.

Stationary Fire Protection Systems

To work on a fire protection system that contains F-gas equivalent to 3kg or more you must have:

- a Fire Industry Association (FIA) F-gas certificate for individuals
- an equivalent qualification that an EU member state recognises

Electrical Switchgear

Persons must be qualified to carry out work on electrical switchgear that contains sulphur hexafluoride (SF6). This includes

- installation of new systems
- general maintenance including service and repair
- recovering sulphur hexafluoride (SF6)
- decommissioning and disposing of systems

Individuals must hold a qualification from an accredited organisation (or an equivalent qualification that an EU member state recognises). Please refer to EA & DEFRA's website for up-to-date qualification bodies.

Certification for Service Companies working on equipment containing F-gas

Service Companies must be certified by an approved body to service F-gas containing equipment operated by others i.e. they are required to hold a Company Certificate. The company must meet the above requirement and its company certification must be renewed every 3 years.

Additionally, Companies servicing fire protection systems must be certified by the Fire Industry Association.

Company certification must be renewed every 3 years.

The service company must be certified to install, maintain, repair, decommission. The service company must be able to demonstrate that:

- they employ enough trained staff to do the work
- have a written procedure for how to handle F-gases safely and minimise emissions.

Service company employees must also be qualified as individuals as described earlier in this Section.

Please refer to EA & DEFRA's website for up-to-date certification bodies.

Operators servicing their own equipment

An Operator carrying out the installation, maintenance, repair, recovery or decommissioning of their own F-gas containing equipment does not require to hold a Company Certificate from the relevant certifying organisation. However, employees still have to be appropriately qualified and qualified as individuals if they handle F-gas, whether they work directly for an Operator or a service company. An Operator also does not require a Company Certificate to purchase F-

gas from a supplier provided that the Operators personnel are appropriately qualified (Article 11(4) of the EU Regulation).

3.5 Control of Use

3.5.1 Bans in existing systems

You may not use any virgin F-gases to refill existing refrigeration systems when:

- The refrigeration system contains F-gas equivalent to 40 tonnes or more of CO2, and
- The F-gas has a global warming potential above 2,500.

The above ban does not apply to military equipment or equipment designed to cool products to temperatures below -50 degrees Centigrade.

If your refrigeration system is affected by the ban, you can:

- Use reclaimed F-gas with a global warming potential of more than 2,500 that has been reclaimed until end 31 December 2029;
- Use a recovered and recycled F-gas with a global warming potential of more than 2,500 from similar equipment by your business or the business which serviced your equipment until end 31 December 2029;
- remove the complete inventory of the F-gas from the system and replace it with an F-gas with the lowest possible global warming potential;
- replace the refrigeration system with a new system that use a refrigerant with a lower global warming potential.

3.5.2 Bans in new systems

	Banned uses	**GWP**	**Date of ban**	**Exceptions**
Refrigerants	Non-confined direct evaporation system (that can escape into the atmosphere)	All	Current	None
	Domestic Fridge & freezers	Above 150	Current	None
	Stationary refrigeration equipment	Above 2,500	Current	Systems designed to cool products

				to below -50 °C
	Refrigerators & freezers for commercial use (hermetically sealed)	Above 150	Current	None
Insulating foam new products	One component foam aerosol	Above 150	Current	None
	Extruded polystyrene foam	150	Current	None
	All foams	150	Current	Except when required to meet national safety standards
Air conditioning & heat pump systems	Single split systems that contain less than 3 kg of refrigerant	Above 750	From 2025	Large air-conditioning or heat pump system
Fire protection system	All	All	Current	None

3.6 Labelling F-gas equipment

All F-gas containing equipment must be labelled. The label must include:

- industry name for the F-gas
- mass of F-gas currently in the equipment (kg)
- weight of the F-gas in equivalent tonnes of CO2; and
- GWP of the F-gas

Label the product as containing hermetically sealed F-gas if the:

- part of the product containing F-gas is permanently sealed, for example welded or brazed shut, even if it has capped valves or service ports
- product has a tested leak rate of less than 3g per year
- electrical switchgear has a tested leakage rate of less than 0.1 % per year as set out in the technical specification of the manufacturer.

The label shall be clearly readable and indelible and shall be placed either:

(a) adjacent to the service ports for charging or recovering the fluorinated greenhouse gas; or

(b) on that part of the product or equipment that contains the fluorinated greenhouse gas.

The label shall be visible and readily accessible for inspection.

The entire label and its contents shall be designed to ensure that it remains securely in place on the product or equipment and shall be legible under normal operational conditions, throughout the entire period during which the product or equipment contains fluorinated greenhouse gases. If the product or volume of F-gas within the system change, then the label is required to be updated to include the updated information.

4.0 Checking for Leaks

Article 4 of the EU Regulation requires Operators to carry out leak checks of F-gas containing equipment on a frequency based on CO2 equivalence of the F-gas and type of equipment it is contained in.

Article 3(3) of the EU Regulation requires Operators to ensure that where a leak of F-gas is detected, the equipment is repaired without delay and a leak check carried out to demonstrate the repair has been effective. An additional leak check must be carried out within a month of the repair to demonstrate the repair is still sound. These leak checks must be carried out by qualified personnel.

Operators are responsible for identifying and stopping leaks from their equipment by using suitably qualified personnel, either within their own organisation or from certified service companies. Service companies that install, service, maintain, repair or decommission equipment on behalf of the Operator share responsibility for identifying and stopping leaks from the Operator's equipment.

Equipment must be checked for leaks at specific intervals, as follows:

- 5-49 tonne CO2 equivalent - 12 monthly maximum period between leak checks
- 50-499 tonne CO2 equivalent - 6 monthly maximum period between leak checks
- 500+ tonne CO2 equivalent - 3 monthly maximum period between leak checks (see also section 4.1)

This applies irrespective of the operating mode of the installation, i.e. manned, normally unmanned, non-production installations in transit, etc.

There are special cases and exceptions to the above:

- if an automatic leak detection system is installed, the maximum interval between leak checks is doubled
- leak check requirements do not apply if the F-gas is contained in foams
- there is no requirement to leak check hermetically sealed equipment provided it contains less than 10 tonnes CO2 equivalent and is labelled as hermetically sealed.

Electrical switchgear will not be subject to leak checks provided it complies with one of the following conditions:

- it has a tested leakage rate of less than 0.1% per year and is labelled accordingly
- it is equipped with a pressure or density monitoring device, or
- it contains less than 6 kg of F-gas

4.1 Installing leak detection equipment

An automatic leak detection system must be fitted if the equipment contains 500 tonnes of CO2 equivalent or more for stationary refrigeration, air conditioning, heat pump, electrical switchgear and fire protection equipment.

Article 5(3) of the EU Regulation requires Operators to ensure any leak detection systems installed on equipment containing F-gas quantities greater than 500 tonne CO2 equivalent are checked at least once every 12 months to ensure their proper functioning.

Article 5(4) of the EU Regulation requires Operators to ensure any leak detection systems installed on electrical switchgear containing F-gas quantities greater than 500 tonne CO2 equivalent are checked at least once every 6 years to ensure their proper functioning.

Leak detection systems must alert the Operator, or a service company responsible for the equipment, if a leak is detected.

The annual alarm check for the fire protection system does not negate the need to have an automatic leak detection system installed on systems containing more than 500 tonnes CO2 equivalent and installed after 1 January 2017. Personnel carrying out the alarm check on systems that contain F-gas must hold F-gas qualification.

5.0 Recovered, Reclaimed or Recycled F-gas and Disposal

5.1 Recovered F-gas

Article 8 of the EU Regulation requires you to ensure that any recovery of F-gas is carried out by properly qualified persons, so that those gases are recycled, reclaimed or destroyed. You must recover F-gases from:

- commercial or industrial refrigeration systems
- stationary air conditioning
- portable or mobile air conditioning systems
- stationary heat pump
- stationary fire protection system
- high voltage switchgear

You must recover F-gas from other equipment if:

- its technically feasible
- cost of doing so is proportionate.

The above does not apply when the F-gas is contained in foam when decommissioning and/or disposing of equipment.

5.2 F-gas reclaimed or recycled

Reclaimed F-gas is reprocessed to the standard of virgin (unused) F-gas. Recovered F-gas can be sent to a specialist reprocessing plant to be reclaimed, recycled, or destroyed.

This applies to:

- F-gas that can be removed from equipment and transported separately
- F-gas incorporated into the equipment, for example in foam.

The rules apply to all:

- Refrigerants
- HFC used in foam insulation
- HFC used in fire protection systems
- Sulphur hexafluoride (SF6) from high voltage switchgear.

Any F-gas removed from equipment should be recovered into cylinders that are refillable as opposed to single use and appropriately labelled with the gas type. Please note that only one type of F-gas should be contained within a cylinder.

If the F-gas is sent to a specialist reprocessing plant to be destroyed, you must use a registered waste carrier.

5.3 Using recycled F-gas

Using recycled F-gas is re-using F-gas following a basic cleaning process.

Recycled F-gas with a GWP of more than 2,500 can only be used in equipment owned or operated by the:

- Company that owned the refrigeration system from which the F-gas was recovered, and
- Company that carried out the recovery.

5.4 Disposal of F-gas

Operators shall ensure that any F-gas that is recovered / reclaimed or recycled are transported by a registered waste carrier to a licensed waste facility that accepts waste F gas and ozone depleting substances (ODS).

6.0 Disposing of equipment and Decommissioning

Where equipment is redundant but remains on the installation the F-gas must be removed from the equipment and sent onshore as detailed in section 5.

Environmental Appraisals included as part of the Decommissioning Programme must include provision for removal of F-gas from all redundant equipment. The F-gas must be recovered and sent onshore for disposal, which may include for reclamation or recycling. Detailed records for these activities must be maintained. This must include details of inventories in equipment when coming to port, details of how the F-gas was removed from the system and where it was sent onshore for disposal. This must be itemised and expressed where applicable in type of F-gas contained, quantity of F-gas (kg), and the tonnes CO2 equivalent. This information must be shared with OPRED in the Decommissioning Close Out Report.

7.0 Records and Reporting

7.1 Keeping Records

Article 6(1) of the EU Regulation requires Operators to establish and maintain specific records for all equipment containing F-gases which are subject to leak checks under the Regulations.

Operators must keep the following records for any equipment that contains 5 tonnes CO2 equivalent or more that must be checked for leaks (refer to section 4 for leak-checking criteria):

- quantity and type of F-gas in the equipment when it's installed, in both kgs and CO2 equivalent.
- quantity and type of F-gas added during installation, maintenance, servicing or due to leakage, in both kgs and CO2 equivalent.
- details (name, address and certificate number if relevant) of any companies/individuals that install, service, maintain, repair or decommission the equipment
- dates and results of all mandatory leak checks
- measures taken to recover and dispose of F-gas when the equipment is decommissioned e.g. disposing of it through a registered waste carrier
- quantity of any F-gas recovered

The above records should enable Operators to identify any losses of F-gas to atmosphere and where necessary report these to the department as per section 7.2.

Operators must also record if the F-gas used in the equipment has been recycled or reclaimed and if so the details of the recycling or reclamation facility including name, address and certificate number.

Article 6 (2) (a & b) of the EU Regulation requires you to retain the specific records for all equipment containing F-gas for a period of 5 years.

For electrical switch gear there is no requirement to retain the records specified in Article 6 of the EU Regulation if the switchgear is not subject to leak test requirements as per Article 4(1)(a) although a demonstration of why any electrical switchgear is not leak tested may be requested.

Operators (and service companies employed by an Operator) shall maintain their records in a clearly auditable fashion that readily demonstrates compliance with the regulations and make the records available to the department if requested to do so.

OPRED inspectors frequently require F-gas records to be produced during routine offshore inspections of installations and may be checked against EEMS returns submitted by the operator.

7.2 Reporting

Article 20 of the EU Regulation requires the department to establish a reporting system to acquire F-gas emissions data and this is done via the Environmental and Emissions Monitoring System (EEMS).

To achieve this, Operators of equipment that contain more than 5 tonnes CO2 equivalent shall report, via EEMS, to the department by 31 March each year reporting on the previous calendar year. The report shall include the inventories of F-gas contained in the equipment on an installation-by-installation basis and any releases from that equipment. The reporting shall be in kilograms of F-gas and tonnes CO2 equivalent. Where an F-gas release has been previously reported in IRS this must also be reported in your EEMS return. Where stock cylinders are present on an installation, only releases shall be reported to EEMS - not the stock cylinder F-gas inventory.

Breaches of the regulations shall be reported to the department on an F-gas noncompliance notification form which can be accessed and submitted via the IRS. https://itportal.energysecurity.gov.uk/eng/fox/desnz/DESNZ_LOGIN/login. To access IRS, applicants will need an account on the UK Energy Portal, which can be obtained by contacting the Oil Energy Portal team via the above link. In the event that the IRS is unavailable, or cannot be used, a Non-Compliance Notification can be submitted using the Non-Compliance form which is available on the department's website.

Additionally, Operators shall inform the department via the IRS of any releases of F-gas greater than or equal to 250 tonnes CO2 equivalent within 2 working days of becoming aware of the release. The purpose of this reporting requirement is to enable the department to receive timely notification of significant releases and identification of any systemic issues with the management of F-gas offshore. The reporting form should be completed with enough detail to allow the department to make a determination on whether any further investigation or action is required.

8.0 Inspection and Enforcement

8.1 Inspection

OPRED offshore environmental inspectors are appointed as ‘authorised persons’ in relation to the inspection and enforcement of the regulations. For the purpose of enforcing the regulations authorised persons have certain specified powers which include:

- entering premises (including offshore installations)
- taking possession of any relevant article or substance
- requiring the production of relevant records
- requiring any person to provide any relevant information
- taking appropriate enforcement action

8.2 Enforcement

The approach of the department to the enforcement of the regulations is consistent with the principles of enforcement as detailed in the OPRED Enforcement Policy.

The Fluorinated Greenhouse Gases (Amendment) Regulations 2018 (the Regulations) set out where breaches of the regulations are an offence and where the department may take enforcement action.

8.3 Civil Penalties

OPRED may impose civil penalties for breaches of the Fluorinated Greenhouse Gases Regulations 2015 in accordance with the provisions contained in the Fluorinated Greenhouse Gases (Amendment) Regulations 2018 (the Regulations).

Civil penalties can be imposed for around 80 breaches of the regulations which relate to:

- intentional releases of F-gas
- preventing releases
- placing F-gases on the market
- the F-gas quota
- the use of F-gas
- reporting and record keeping
- fire protection checking

- failure to comply with relevant requirements or notices or to provide assistance
- F-gas leakage and recovery

Schedule 4 of the Regulations sets out the civil penalty that applies to each breach. OPRED will normally impose a civil penalty for all breaches referred to in the regulations and the statutory maximum will normally apply as the initial penalty amount. This is because the civil penalties in the Regulations have been set based on the seriousness of the breach taking into account:

- the impact the breach has on the integrity of the scheme
- the environmental effect of the breach, where relevant

Operators can also refer to OPRED guidance on The Offshore Environmental Civil Sanctions Regulations 2018.

9.0 Definitions and Abbreviations

9.1 Definitions

CO2 Equivalent	A metric used to compare the emissions from various greenhouse gases based upon their global warming potential.
F-gas	Fluorinated gases that trap heat within the atmosphere and contribute to global warming
Global Warming Potential	A measurement of the amount of heat a gas trap within the atmosphere over a given period of time and relative to 1kg of CO2
Heat Pumps	are devices that use refrigeration circuits to extract energy from an ambient or waste heat source and deliver heat. In addition, reversible systems are available which have a cooling as well as heating function.
Hermetically Sealed Systems	means a system which has been factory assembled and contains only permanent connections, examples include most types of equipment which are of the plug-in type like most catering fridges and freezers.
Integrated Reporting Service	online application within the department's energy portal to enable notification of breaches of regulations and non-compliance with Permits and Consents.
Offshore Installation	an installation or structure (other than a Scottish offshore installation, a Northern Ireland offshore installation or a ship) which is—

	(a) situated in the waters of, or on or under the seabed in— (i) the tidal waters and parts of the sea in or adjacent to the United Kingdom up to the seaward limits of the territorial sea; (ii) in the case of the activities listed in sub-paragraph (b)(i) to (vi), an area designated by an Order in Council under section 1(7) of the Continental Shelf Act 1964; or (iii) in the case of the activity listed in sub-paragraph (b)(vii), the sea in any area for the time being designated under section 41(3) of the Marine and Coastal Access Act 2009; and (b) used , intended to be used or has been used, in connection with— (i) the exploitation, or the exploration with a view to exploitation, of mineral resources in or under the shore or bed of waters described in sub-paragraph (a)(i) and (ii); (ii) the exploration of a place in, under or over such waters with a view to the storage of gas; (iii) the conversion of a place under the shore or bed of such waters for the purpose of storing gas; (iv) the storage of gas in, under or over such waters or the recovery of gas so stored; (v) the unloading of gas at a place in, under or over such waters; (vi) the conveyance of things by means of a pipe, or system of pipes,

	constructed or placed on, in or under the shore or bed of such waters; or (vii) the production of energy from water or wind.
Operator	means the natural or legal person exercising actual power over the technical functioning of products and equipment covered by the regulations. In most circumstances this will be the appointed installation operator of a production installation or the owner of a non-production installation (NPI).
Reclaimed F-gas	Reprocessed F-gas to the standard of virgin (unused) F-gas.
Recovered F-gas	Refrigerant from a system that has been put into a refillable refrigerant cylinder during repairs or replacement of the air-conditioning system
Recycled F-gas	re-using F-gas following a basic cleaning process and the product is being returned for use on the same site and has not been moved between premises. Recycled F-gas with a global warming potential of more than 2,500 can only be used in equipment owned or operated by the: company that owned the refrigeration system from which the F gas was recovered.
Single Split Air Conditioning System	A single split system refers to a refrigerated type of air conditioner consisting of two main operating components. One component is the evaporator (indoor unit) which is installed inside the room and the compressor and condenser (outdoor

	unit) which is located outside the building.
Stationary Air Conditioning Equipment	is used in the commercial and industrial sectors with the main function being to cool or control the temperature in a room or area to a certain level. The size of the equipment ranges from small mobile units to large industrial fixed units used to cool areas. This type of equipment also includes de-humidifiers. Dependant on the layout, differentiation can be made between single package air conditioners (all essential components are built into a single casing) and split systems (all essential components are built into several casings).
Stationary Refrigeration Equipment	is equipment which is designed to cool products or storage space below ambient temperature, this includes domestic refrigerators and freezers as well as commercial and industrial uses.
The department	DESNZ/ OPRED shall be referred to as the department for the purposes of these Guidance Notes.
The regulations	• Regulation (EU) No 517/2014 on fluorinated greenhouse gases • UK's implementing legislation - the Fluorinated Greenhouse Gases Regulations 2015 (SI 2015 / 310) • Fluorinated Greenhouse Gases Regulations (Northern Ireland) 2015 (SI 2015 / 425) (the "NI Regulations") • And any subsequent amendments to the above.

Virgin gas	Unused gas

9.2 Abbreviations

CO2	Carbon Dioxide
DEFRA	Department for Environment, Food & Rural Affairs.
DESNZ	Department of Energy Security and Net Zero
EA	Environment Agency
EEMS	Environmental and Emissions Monitoring System
EU	European Union
F-gas	Fluorinated gas
g	gram
GB	Great Britain
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
IRS	Integrated Reporting Service
kg	kilogram
NI	Northern Ireland
OPRED	Offshore Petroleum Regulator for Environment & Decommissioning
tCO2e	tonne Carbon Dioxide equivalent

UK	United Kingdom
UKCS	United Kingdom Continental Shelf

This publication is available from: https://www.gov.uk/guidance/oil-and-gas-offshore-environmental-legislation#fluorinated-greenhouse-gases-regulations-2015

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