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Summary Guidance for Operators of Refrigerated Trucks and Trailers

Refrigeration equipment in trucks and trailers can run on either Fluorinated Greenhouse gases (F-gases) or Ozone Depleting Substances (ODS). Refrigeration systems in older trucks/trailers can contain ODS.

This guidance note gives the key obligations laid down in the new [F-gas Regulation \(EU No 517/2014\)](#) and the [ODS Regulation \(EC No 1005/2009\)](#) for operators¹ of refrigerated trucks and trailers².

- a) **Refrigerated trucks:** motor vehicles above 3.5 t and equipped with a refrigeration unit.
- b) **Refrigerated trailers:** vehicles designed to be towed by a tractor or truck and equipped with a refrigeration unit.

These Regulations are concerned with the **phase down** of F-gases and also **preventing the release** of F-gases and ODS into the atmosphere.

The key obligations are as follows:

Requirement/Obligation to:	Refrigerated Trucks and Trailers
1. Prevent Emissions	Yes
2. Leak Checking	Yes
3. Recovery	Yes
4. Training Certification	Yes
5. ODS Ban and F-gas Phase-down	Yes
6. Waste Management	Yes
7. Maintain Specified Records	Yes

¹ The operator is defined in the F-gas Regulation as “the natural or legal person exercising actual power over the technical functioning of products and equipment covered by this Regulation”. As a starting point the owner should assume responsibility for operator obligations, unless it is confirmed that operator obligations have been transferred to a 3rd party.

² Refrigerated truck means a motor vehicle with a mass of more than 3.5 tonnes that is designed and constructed primarily to carry goods and that is equipped with a refrigeration unit. Refrigerated trailer means a vehicle that is designed and constructed to be towed by a truck or a tractor, primarily to carry goods and that is equipped with a refrigeration unit.

It should be noted that refrigeration equipment in Refrigerated trucks and trailers which contain F-gas or ODS must be **labelled** (see **Figure 1**) in accordance with the Regulations before they are placed on the market.



Figure 1: Label

KEY OBLIGATIONS

1. Prevent Emissions

The intentional release of F-gases and ODS into the atmosphere is prohibited. Operators of equipment that contains F-gases and ODS shall take precautions to prevent the unintentional release of these gases.

2. Leak Checking

Refrigeration equipment on trucks and trailers³ must be **checked for leaks**⁴ and, if necessary, repaired. For equipment containing F-gas the frequency of leak checking depends on the GWP (expressed in CO₂ eq). For equipment containing ODS the frequency depends on the quantity of ODS (in kg).

Leak checking frequencies for equipment containing ODS and F-gas are set out in Table 1. For more information on leak checking please refer to the Guidance Document titled "[Summary Guide to the New Leak Checking Requirements](#)".

³ Refrigerated shipping containers are not covered under the F-gas Regulation.

⁴ Until 31 December 2016 equipment that contains less than 3 kg F-gases (less than 6 kg if hermetically sealed) is exempt from leak checks.

Table 1 Leak Checking Frequency for Equipment Containing ODS/F-Gas

F-gas			ODS		
Leak Checking Frequency			Leak Checking Frequency	System charge - normal (kg)	System charge - Hermetically sealed (kg)
Quantity of gas (t CO ₂ eq)	If no leak detection equipment fitted	If leak detection equipment fitted			
≤ 5	None	None	Annual	3 kg to 30 kg	6 kg to 30 kg
5 - 50	12 monthly	24 monthly	6 monthly	30 kg to 300 kg	30 kg to 300 kg
50 - 500	6 monthly	12 monthly	Quarterly	> 300 kg	> 300 kg
≥ 500	3 monthly	6 monthly			

The use of leak checking based on CO₂ equivalent is to encourage the use of lower GWP alternatives. Hermetically sealed equipment containing less than 10 t CO₂ eq is not subject to leak checking provided the equipment is labelled as being hermetically sealed.

3. Recovery

F-gases removed from all refrigeration equipment on trucks and trailers during servicing, maintenance, repair or vehicle dismantling must be recovered to ensure they are recycled or disposed of appropriately.

ODS removed from all refrigeration equipment on trucks and trailers during servicing, maintenance, repair or vehicle dismantling must be recovered to ensure they are **discarded and managed as a hazardous waste** as **there is no longer any legitimate use for recovered ODS.**

Refrigerant recovery equipment must be used to remove refrigerant, and the work must be carried out by appropriately qualified personnel (see **4 Training Certification** below).

4. Training Certifications and Company Certification

Personnel (whether in-house or contractor) installing, maintaining, servicing, leak checking, repairing or decommissioning refrigeration equipment on trucks and trailers or recovering F-gases from the systems must have the appropriate training **certificate**.

Contractor companies must hold a company certificate. F-Gas Registration Limited is the certification company established in Ireland to issue company certificates (FGR)⁵.

You should check whether contractor companies are appropriately certified by seeking a copy of their certification. Further detailed information on these obligations is provided in the Guidance titled "[Guidance Note for Contractors of Equipment Containing F-gases and ODS](#)".

⁵Contractor company certificates can also be issued by a certification body in another Member State of the European Union and are mutually recognised in Ireland.

5. ODS Ban and F-gas Phase-down

Since **1st January 2015**, the use of ODS such as R22 in the maintenance or servicing of existing refrigeration equipment is **prohibited**. You can still operate ODS equipment after this date. However, if the equipment leaks, it cannot be topped up with ODS refrigerant gas. You either have to use an alternative gas or replace the equipment (with equipment that does not run on ODS).

A **phase down** of the quantities of F-gases placed on the EU market by producers and importers has been in place **since 1st January 2015**. This means that each year the quantity of F-gas available to contractors for maintenance/servicing of equipment containing F-gas will reduce. Further advice and guidance can be obtained from your qualified and certified contractor or by consulting "[Summary Guide to the HFC Phase Down](#)".

6. Waste Management

Any waste gas recovered from refrigeration systems for which there is no further use is a **hazardous waste** and must be disposed of correctly in accordance with the [Irish Waste Management Act of 1996](#). Your contractor may take the gas away for treatment if they have provided **Prior Annual Notification** (PAN) to the EPA ([Ozone.ie](#)) or if they have a valid waste collection permit in place ([NWCPO.ie](#)). You must check for these before allowing any waste gas to be removed.

Written records must also be kept to prove that waste gas has been managed legally and that waste equipment has been disposed of according to the WEEE Regulations. Further information on the required records is included in "[Guidance Note for Operators of Equipment Containing F-gases and ODS](#)".

7. Record Keeping

You must keep **written records** to prove you have had your equipment leak checked, that you've used certified people/companies and managed your waste legally.

Specifically with relation to refrigerated trucks and trailers containing 5 t CO₂ eq or more F-gas charge you must:

1. Establish and maintain records for each piece of equipment specifying the following information:
 - a. The quantity and type of F-gas installed.
 - b. The quantities of F-gases added during installation, maintenance or servicing due to leakage.
 - c. Whether the quantities of installed F-gases have been recycled or reclaimed, including the name and address of the recycling or reclamation facility and, where applicable, the certificate number.
 - d. The quantity of F-gases recovered.
 - e. The identity of the undertaking which installed, serviced, maintained and where applicable repaired or decommissioned the equipment, including, where applicable, the number of its certificate.
 - f. The dates and results of leak checks carried out.
 - g. If the equipment was decommissioned, the measures taken to recover and dispose of the F-gases.

2. Records should be kept for at least five years and should be made available, on request, to the competent authority.
3. Undertakings supplying F-gases shall establish records (maintained for at least five years and available, on request, to the competent authority) of relevant information on the purchase of F-gases including:
 - a. The number of certificates of the purchasers.
 - b. The respective quantities of F-gases purchased.

Specifically with relation to ODS you must maintain records (available on request to the competent authority) on:

- a) The quantity and type of controlled substance added and the quantity recovered during maintenance, servicing and final disposal of the equipment or system
- b) The identification of the company or technician which performed the maintenance or servicing
- c) Dates and results of leakage checks carried out

Further information on the required records (and a record template) is included in "[Guidance Note for Operators of equipment containing ODS and F-gases](#)".

BEST PRACTICE

Maintaining an **inventory** of equipment is best practice for managing refrigeration systems. It is recommended to record the following for each piece of equipment as a minimum:

- Equipment number
- Equipment location
- Gas type
- GWP of gas (for F-gas)
- Charge (amount) of gas in kg
- Quantity of gas in t CO₂ eq (for F-gas)
- Leak checking frequency
- Next service date

Note: Regulation (EU) No. 517/2014 introduces the regulation of refrigerated trucks and trailers for the first time. The existing provisions for requirements for e.g. leak checking and training & certification in Irish and European legislation refer only to stationary refrigeration equipment. These provisions are likely to be amended and updated to include the new equipment covered by EU No. 517/2014; however, until this is done the current provisions for stationary equipment should be used, where appropriate, as guidance for refrigerated trucks and trailers.

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