Refcom is a BESA Group Company

TECHNICAL BULLETIN TB/047
REFRIGERANTS BANNED FROM USE AS OF 1 JANUARY 2020

1 OBJECTIVE

The objective of this technical bulletin is to update members on what refrigerants are now banned from use as there have been reports of confusion and a lot of misleading statements made by some parties.

This technical bulletin is an update to our recent TB046 Service & Product Bans guidance issued in December 2019 and that guidance should be referred to for information relating to specific product bans which came into effect on 1st January 2020 under the F-Gas Regulations. This TB is an overview which updates members on the legal position relating to older refrigerants such as CFCs and HCFCs which are still sometimes is use in older equipment.

2 OLDER REFRIGERANTS: CFSs & HCFCs - OZONE DEPLETING SUBSTANCES[1]

Government advice on ozone depleting substances and the ODS Regulation that covered the phase out of these substances has been withdrawn from Government websites because the date(s) of the stages of phase out are now historical and the regulation covering these substances was superseded by the F-Gas Regulations in terms of leak checking and minimising emissions of the refrigerants containing fluorine, whether they be CFC, HCFC or HFC.

CFCs have been prohibited from use since 1995 in the UK and regulatory text covering CFCs has been completely removed from publicly accessible Government libraries now.

HCFCs such as R22 and R502 have been prohibited from use in new equipment since 2001 and since the 1st January 2015 the use of reclaimed or recycled HCFC refrigerants was also banned.

It is still permissible to use equipment that runs with these refrigerants, and those systems must be leak tested at least annually in accordance with the F-Gas Regulations requirements, but there are restrictions on what work can be carried out on equipment containing CFCs/HCFCs.

- It is against the law for anybody to connect a manifold set to a system charged with a CFC/HCFC unless they are carrying out a decant of the refrigerant charge to allow for the destruction of the CFC/HCFC. If gauges are connected to a system and CFC/HCFC refrigerant is present, then that charge must be recovered and the refrigerant sent for proper destruction.

- If equipment using a CFC/HCFC requires a component replacing from within the refrigerant circuit that requires the decanting of the refrigerant charge, then that charge **must** be sent for destruction after recovery and the system would have to be charged with an alternative suitable refrigerant after replacement of the faulty component.

It is absolutely prohibited to put the recovered CFC/HCFC back into the system upon completion of the repair work.

[1] www.gov.uk/guidance/hcfcs-in-refrigeration-and-air-conditioning-equipment

3 NEW SERVICE BANS SINCE 1 JANUARY 2020[2]

The use of virgin fluorinated greenhouse gases (HFCS) with a GWP[3] of 2500 or more to service or maintain refrigeration equipment with a charge of 40 tonnes CO_2 equivalent or more is prohibited from 1 January 2020.

The figure on the right shows what this threshold means for some common refrigerants currently in widespread use.

There is no restriction on the servicing nor the long-term use of these systems, other than the prohibition on using virgin refrigerants after 1 January 2020. There are no current plans to prohibit the use of these systems in future, nor restrict the use or serviceability of systems with a charge lower than the 40 tonnes CO_2 equivalent.

40 tonnes =
<10.2kg R404A
10kg R507A
14.6kg R422D

Exemptions from this service ban apply to military equipment **and also** where equipment is intended for applications designed to cool products to below-50°c.

An extension of the use of fluorinated greenhouse gases with a GWP of 2500 or more applies until 1 January 2030 for:

- **Reclaimed refrigerant** used for the service and maintenance of existing refrigeration equipment, provided the refrigerants have been labelled in accordance with Article 12(6)[5] . Note this is for existing equipment only – **reclaimed refrigerants cannot be used in new equipment being installed.**

- **Recycled refrigerant** used for the service or maintenance of existing refrigeration equipment provided they have been recovered from such equipment. Such recycled gases may only be used by the undertaking which carried out the recovery as part of maintenance or servicing or the undertaking for which the recovery was carried out. This means that the service company who carried out the recovery of the used refrigerant can recycle the recovered charge and re-use on the same systems, or the end user can retain the recycled refrigerant to re-use on their systems.

See REFCOM TB023 Refrigerant Recovery for further definitions and clarification on the recovery, reclamation and recycling processes.[5]

See REFCOM TB046 Service & Product Bans 2020 for specific product bans which came into effect on 1 January 2020.[6]

[2] EC517/2014, Article 13 Control of use, paragraph 3
[3] GWP Global Warming Potential, based on the Intercontinental Panel on Climate Change (IPCC) 4th Assessment Report figures
[4] EC517/2014, Article 12(6): Reclaimed or recylced refrigerants shall be labelled with an indication that the substance has been reclaimed or recycled, information on the batch number and name and address of the reclamation or recycling facility
[5] TB023 Refrigerant Recovery available to REFCOM members at www.refcom.org.uk.
[6] TB046 Service & Product Bans 2020 available to members by download from www.refcom.org.uk