

A GUIDE TO F-GAS REGULATION GUIDES

F-gas Regulation is an important legislation that affects many of those who work in refrigeration sector. Therefore, the requirements of the regulation have been discussed in a great number of publications. In this article we do not attempt to discuss the requirements of the regulation once again, but instead would like to refer the reader to some of the guidelines that cover different aspects of the regulation and its implementation.

After the new regulation on fluorinated greenhouse gases No 517/2014 (further: Regulation) has been adopted there is a demand for quality information that explains the regulation to different actors in refrigeration industry. For some extent this information is available in form on numerous articles that have been published lately. Some actors, however, has published guidelines that explain the regulation and clarify many aspects of its implementation.

The guides on F-gas regulation range in their scope and target audience, starting with those that just cover the basics in a 3 minutes long cartoon video [1] and ending with the brochure from European Commission [2].or Air conditioning and Refrigeration European Association [3]. There are as well a number of other publications that are somewhere in between.

European Commission's guide for equipment operators

The document, which has been prepared for European Commission, covers requirements of the Regulation for equipment operators and technical personal working with refrigeration and air conditioning equipment [2]. The guideline document aims “to provide guidance to equipment users and technicians without prejudice to the obligations contained in the Regulation” and therefore is relevant mostly to the above mentioned persons. It provides explanation to some important terms used in the regulation, points out what is new and what equipment is affected by the regulation. The guide conveniently subdivides the entire range of refrigeration equipment into nine different categories, and discusses the effects of the Regulations based on the equipment category in question. Check Figure 1 and Table 1 for the example of how this applies to the requirements to stationary equipment.

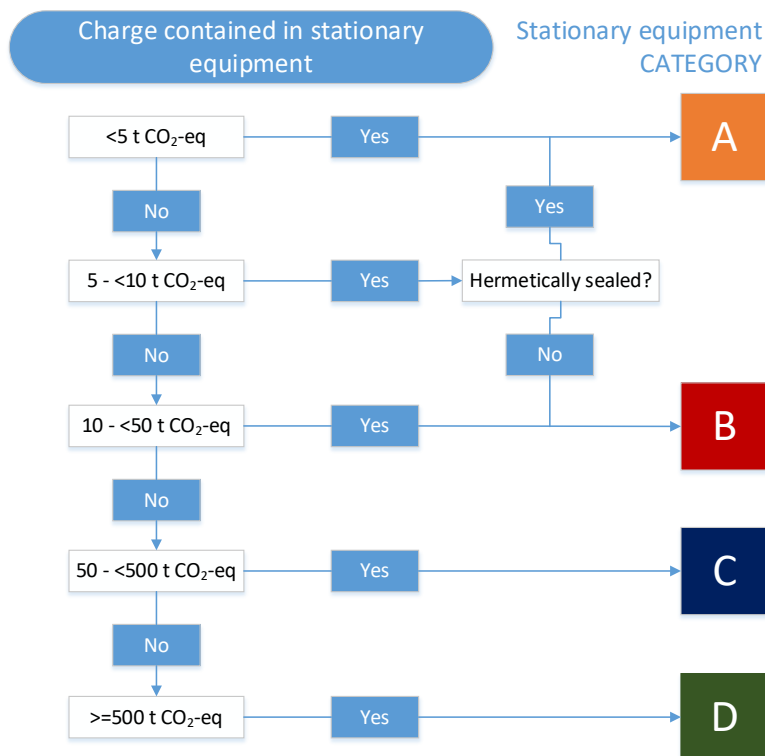


Figure 1 - Decision tree for stationary equipment categories [2]

Table 1 - Overview of requirements in stationary equipment categories [2]

Measure	Stationary refrigeration and AC			
	A	B	C	D
Leakage prevention and repair as soon as possible (Art. 3)	√	√	√	√
Installation, maintenance or servicing of the equipment by certified personnel and companies (Art. 3)	√	√	√	√
Minimum frequency of leak checks by certified personnel (Art. 4)		12 mo.*	6 mo.*	3 mo.*
Installation of leakage detection system which must be checked at least every 12 mo. (Art. 3)				√
Record keeping (Art. 6)		√	√	√
Recovery of F-gases before final disposal of the equipment, and when appropriate during maintenance or servicing, by certified personnel (Art. 8 and Art. 10)	√	√	√	√
Labelling of equipment (Art. 12)	√	√	√	√
(*) If the stationary refrigeration or air conditioning equipment is equipped with a leakage detection system the frequency of leak checks doubles to 24 months, 12 months and 6 months for classes B, C and D, respectively.				

AREA F-gas guide

Another comprehensive guidelines provided by the Air conditioning and Refrigeration European Association (AREA) [3]. The document addresses all aspects of the Regulation that are relevant to the refrigeration, air conditioning and heat pump contractors. It discusses the Regulation sequentially, article by article, highlighting the impact of it on contractors, comparing with the requirements of the previous regulation and making relevant suggestions. It also lists some useful tools as for instance convenient flowchart to determine leakage checking requirements, timeline that lists the most important dates of the Regulation, CO₂ equivalents of the environmental effect of most of the common refrigerants (including a number of new blends such as R449A), and other.

EPEE guidelines

European Partnership for Energy and the Environment (EPEE) has issued a two-page brochure that covers major requirements of the Regulation [4]. For those with deeper interest, they have published another document that covers different areas of the Regulation that are relevant to operators, users and installers of refrigeration equipment, including the effect of the Regulation on those who deal with bulk HFCS and those who manufacturing pre-charged products [5]. This document could be recommended for those who prefer reading answers in convenient Q&A format.

Guidelines from other companies

Many companies have provided their guidelines as well. Those who are looking after opinions regarding the effect of different aspects of the regulation are advised to refer the document, prepared by the Linde Group [6], as this guide is mostly focused on providing a technical analysis of the Regulation and includes recommendations on actions necessary to comply its requirements. Other companies worth mentioning are Danfoss and Bitzer. In addition to the general discussion of Regulation effects, they have summarized their vision of future low GWP refrigerants [7] [8].

While the materials, discussed above, are of great help to anyone willing to understand the requirements of the new F-gas regulation, we would still refer to the original text of the Regulation as it is the only one, among the discussed, that has definitive legal status [9].

Följ gärna våra publikationer och få vårt digitala nyhetsbrev. Anmäl dig genom att följa länken bit.ly/kth_ett.

Bibliography

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