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AFCE position: F-Gas review

DECEMBER 2020

EXECUTIVE SUMMARY

The F-Gas 517/2014/EU regulation has proven to be effective and demonstrated the ability of the refrigeration and Air conditioning industry to itself adapt and progress.

The “Phase Down” mechanism works and must be pursued without any additional restriction until 2030 deadline. Best practices as containment, traceability, certification, training should be extended to all refrigerant types, fluorinated or not.

Alternative refrigeration and air conditioning solutions required validation considering at first the energy efficiency, global source of GHG emission reduction. It is crucial for the European Green Deal objectives. Considering only the GWP value of the refrigerants is unjustified without estimation of global emission of the system.

Since the beginning AFCE has been proactive for the construction and implementation of the F-Gas. AFCE fosters the implementation of the current F-Gas 517/2014/EU regulation across Europe and homogeneously between Member States. During the revision process a particular attention must be given to not generate additional costs for the industry and the operators.

INTRODUCTION

AFCE is an alliance of industrials, collective members, and users, representing, from the producer to the end user, the French sector of refrigeration and air conditioning. All together we encourage and support a **proactive, responsible, coordinated, and coherent application of the regulation on fluorinated gases**, the European Green Deal, and the United Nations Framework Convention on Climate Change.

After 6 years of implementation, **AFCE** as a F-Gas regulation stakeholder **represents its members’ opinion** in this consultation. AFCE welcomes of the European Commission’s intention to consider the means and results of the current **F-Gas 517/2014/EU** regulation as a solid basis for reflection for the revision by 2022.

F-Gas 842/2006/EC regulation, repealed in 2014 by regulation 517/2014/EU, has proven its effectiveness toward the targets set. **Over the years, the Refrigeration and Air Conditioning industry has demonstrated its ability to adapt and evolve.**

The implementation of the F-Gas in France is a success, it is essential to point out that the implementation and the compliance of **the F-Gas is not consistent across the European Union**. This must be integrated in the objectives of the revision.

This document highlights **AFCE’s main priorities** considering the objectives and strategic options already communicated by the European Commission. AFCE also proposes some guidelines that could be integrated in **the revision of this regulation**.

1. PHASE DOWN

Through F-Gas 517/2014/EU the HFCs phase-down has proven its effectiveness. AFCE is favorable to pursue the phase-down schedule and apply the bans already defined until 2030. **This should give the authorities the time needed to collect, consolidate, and analyze sufficient data** from experts and key players on available technologies and market developments. It is also the **time requested by the industry to develop, industrialize, and deploy new solutions. Also, for operators the time needed to take ownership of all these environmental, technical, economic and safety changes** related to their use.

AFCE proposes as well to extend the phase-down mechanism beyond 2030 and to adapt/align it with the Kigali agreements of the Montreal Protocol.

2. ENERGY EFFICIENCY

AFCE encourages all alternative solutions with low GWP refrigerants. They must be validated by the industry and met the objectives of the F-Gas and **considering energy efficiency as prime of importance.** Focusing only on GWP value of a refrigerant without estimation of global emission of the system does not address European climate challenges.

In compliance with Eco-design Directive, **AFCE recommends widening the scope of environmental impacts by considering all CO₂ emissions** (direct and indirect. Tools such as TEWI, LCCP or more generally GHG balances (scope 1,2,3) are relevant for that purpose.

Refrigeration, air conditioning and heating account for a significant share of total energy consumption in Europe, and mainly with fossil energies. To effectively consider 50% reducing greenhouse gas emissions at least by 2030 and achieving carbon neutrality by 2050, it is crucial **to include electricity decarbonization as a priority, as well as energy efficiency of Refrigeration, Air Conditioning and Heating sector.**

3. RECOVERING, RECYCLING, RECLAIMING AND REUSING REFRIGERANTS

Circular economy is one of the main pillars of the coming European Green Deal. Recovery, **recycling, and reclaiming of refrigerants will play a key role** to reduce CO₂ emissions and these items are fully in line with the Green Deal objectives by reducing the overall environmental footprint.

The 2014 F-Gas Regulation with the HFCs phase-down mechanism increases the pressure on HFCs availability. Recovery, recycling, and reclaim of refrigerants **provide sustainable systems and sustainable economy.** Lifespan of a HVACR system varies from 7 to 30 years.

For a long time, France set up an effective system regarding recovering, recycling and reusing refrigerants. This system also includes packaging management. However, it is not the same situation across all the European countries. There is few consolidated about this matter at European level.

AFCE calls for a better understanding of existing systems and a clarification of the use of recovered, recycled and regenerated refrigerants. Traceability, recovery, and reuse rates are essential to stimulate and strengthen the recovery, recycling, and reuse of refrigerants.

4. TRAINING, CERTIFICATION

2006 F-Gas Regulation included training and certification requirement for operators and technicians. The application of these “bests practices“ has contributed and fully contributes to the key objective of reducing GHG emissions. **However, these obligations and associated controls are neither uniform nor fair between the member states of the European Union. Harmonization is needed.**

Meanwhile **alternative solutions developed and validated by the industry** and with all types of low GWP

refrigerants are becoming available. This includes, among other, solutions **with flammable refrigerants, slightly flammable, toxic or with sometimes very high-pressure levels.**

In 2006 the F-Gas integrated the **training and certification** criteria for the fluids targeted by the regulations. These “Best Practices” **should be extended to all refrigerant types.** Technicians must be able to safely handle flammable, high-pressure, and toxic refrigerants, whether these refrigerants are fluorinated or not.

Companies obligation is to train and to take the necessary measures to ensure the health and safety of its employees. However, when it comes to flammable, slightly flammable, toxic refrigerants or with high pressure levels, **there are no standardized skills repositories.** These technologies must be duly managed by the HVACR industry, it is a question of goods and people safety.

A standardized regulatory skill repository would be an important objective to establish an appropriate and harmonized level of competence within the European Union.

5. CONTAINMENT, CONTROL, PENALTIES

Leak checks, repair obligation, traceability are pillars for the success of the F-Gas regulation. An identified and repaired leak leads **to lower emissions, to keep systems energy performance level and to enhance safety.**

These obligations should therefore apply whether fluorinated or non-fluorinated are used.

In addition, Member States are required to impose effective, proportionate, and deterrent sanctions for violations of F-Gas regulation. **To date, penalties schemes differ considerably from one Member State to another.** Proper and deterrent enforcement of penalties remains **a key factor in achieving regulatory objectives.**

It is also crucial to **strengthen customs and market controls** for HFC substances in Europe. Strengthening and **harmonizing related sanctions** is needed **to deter the illegal trade of refrigerants.**

6. COLLECT, CONSOLIDATE, ANALYZE

Recording refrigerant movements is crucial within the regulation to assess achievements and define complementary actions. But on this matter, **methods and objectives differ between the Member States of the European Union and are neither uniform nor fair.**

There is also an **overall lack of reliable data about leakage and recovery rates.**

From a voluntary agreement of the HVACR sector, **the traceability of refrigerant movements should be extended to all refrigerants,** including fluorinated and non-fluorinated refrigerants. **This would allow to assess,** with data and not hypotheses, **the evolution of alternative solutions.** These are **prime of importance data to properly prepare actions for the period 2030-2036 and beyond** (quotas, controls, bans...)

7. EVALUATE ALL VIABLE ALTERNATIVES

New bans should not be added to the timetable already set out in the current F-Gas. Based on the European single market principle **each player is accountable** based on the acquired and recognized skills.

Any industry-validated alternative solution must incorporate a better energy efficiency that globally reduces GHG emissions.

Driven by climate regulation and urgency, **research and development in the refrigeration and air conditioning industry is very active and innovative.**

8. EUROPEAN HARMONIZATION

The implementation of the F-Gas regulation 517/2014/EU is not uniform between the Member States of the European Union resulting in unfairness, a sense of injustice, unfair competition, but also a loss of credibility of the regulation and European obligations; yet effective when properly implemented.

The Eco-design guidelines and F-Gas regulations must be aligned as part of the Green Deal objective. It will globally offer better solutions for the environment **by integrating the overall environmental footprint** of the systems (e.g., TEWI, LCCP...). A better management of the energy and associated resources is obviously the global objective.

EN378 - 1, 2, 3 and 4 is the European harmonized standard for the design, operation and maintenance of refrigeration systems and heat pumps. However, about **solutions with flammable, slightly flammable or toxic refrigerants several standards, for sample international product standard, guidelines and regulations overlap. This creates uncertainty or obstructions** for the use of effective and sustainable solutions.

CONCLUSION

The Refrigeration and Air conditioning sector has proven from the F-Gas regulation in 2006, repealed and rewritten in 2014, its ability to adapt and evolve. From the beginning AFCE has always been proactive in the construction and implementation of these regulations. AFCE has contributed within the sector, and with the education sector, to a horizontal dissemination of regulations about refrigerants, providing as much as possible the required explanations or clarifications.

Therefore, AFCE encourages to pursue the implementation of the current F-Gas 517/2014/EU regulation across Europe with a harmonized manner. The Commission must particularly pay attention to fairness between Member States.

AFCE encourages greater collaboration, which is essential to the European Green Deal objective, between the F-gas review action and the Energy Stakeholders of the European Union.

Voluntary best practices in France, with some taken as early as 1993, (e.g., containment, traceability, certification, training) should be maintained and extended for all fluoridated or non-fluoridated refrigerants. Integrating non-fluorinated fluids into the annual observatory and fluid inventory reporting would be relevant.

Revision of the F-Gas must be particularly careful to avoid any additional costs for industry and operators.

Particular attention must be given to the current sanitary crisis and economic context, which seriously question the investments of operators and owners. Therefore, current F-Gas's obligations should not be accelerated.

The revision of the F-Gas is a key issue for AFCE. Thanks to its experience and its member diversity, AFCE represents the entire refrigeration and air conditioning sector, and remains at the disposal of the French and European authorities to exchange, collaborate and even take part in working groups.