THE ITALIAN HVACR EXPERIENCE

A CONTRIBUTION TO ACHIEVING UN’ S 17 SUSTAINABLE DEVELOPMENT GOALS

Wednesday, 6 November 2019 | 18:00 - 20:00 | Austria room
AICARR activity for safety standards of flammable refrigerants

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a) compliance with Kigali Amendment (and local regulations) requires that average refrigerants GWP be around 300, at least in the medium term;

source: UNEP-RTOC 2018 Assessment Report
from $\text{C}_n\text{H}_{2n+2}$

• CFC

• HCFC

• HFC

• HFO

to cope with environmental requisites, flammability is a feature that must be accepted;
c) the use of A2, A2L and A3 refrigerants may become necessary for specific applications;
d) Class 2L refrigerants have a lower probability of a combustion event and a lower severity of a combustion if compared to Class 2 refrigerants.
current Italian laws on fire protection:
• DM (Ministerial Decree) 26/8/1992 ...schools...
• DM 9/9/1992 ...hotels...
• DM 9/8/1996 ...entertainment venues...
• DM 18/9/2002 ...hospitals...
• DM 22/2/2006 ...offices...
• DM 27/7/2010 ...shops...

prohibit in HVAC systems the use of:
«flammable or flammable and toxic refrigerant fluids»

a quick update of such standards is required in order to cope with environmental requisites of alternative refrigerants
AICARR is working with VV.F. (Italian Fire Protection Department) and HVAC industry to propose an update of current laws. The Working Group recognized that current laws on fire protection have been outdated by technological innovation and therefore are proposing a new DM where:

• HVAC plants under fire protection control are allowed the use of refrigerants classified A1 and A2L according to ISO 817

• such plants have to be equipped with a proper «Use and maintenance manual»
Thank you for your attention