

First session

New refrigerants and perspectives: new European regulations on f-gases.

Consequences of the current evolution in regulations.

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1) How to replace R22?

The best solution for industry and, most frequently, for environment, is to keep R22 equipment running as long as they are efficient and don't leak.

According to the current regulation, the use of R 22 for refilling and maintenance is allowed until 2015.

But regulation (EC) No 2037/2000 of 28 June 2000 of the European Parliament and of the Council on substances that deplete the ozone layer provides for a possible revision of the deadlines in 2008 and several countries and many ecological groups ask for earlier deadlines.

For equipment running with R22 to be allowed to continue, the refrigeration industry must be able to show that they are able to contain fluids in equipment much better than now.

2) Importance of containment and recovery.

As François Billiard told you, containment and recovery are very important topics: everyone in the industry should feel concerned about that. Making progress in containment and recovery is essential to be allowed to keep R22 installations running. It is also essential to avoid constraints on R 134a: due to its potential global warming effect, R 134a may be subject to strong regulations; the better containment and recovery will work, the lower new rules will be for equipment using HFCs.

3) Refrigerants for air conditioning in cars

Discussions in Brussels and in all Europe have been strong about possible European regulations on R134a in automotive air conditioning systems:

- at the current state of the project, a deadline should be set for the use of R 134 a in automotive air conditioning (December 31 2013) ;
- CO2 and R152a are the two main alternatives considered, although CO2 requires high pressure and R 152a is flammable;
- some people think that such a decision would be a bad precedent and would lead to other restrictions on R134 a in other applications (transport and air conditioning, in particular);
- other ones think that putting restrictions on the use of R 134a in air conditioning in cars would protect the other applications of this fluid: automotive air conditioning is the area where leaks are maximum and it would be difficult to keep R134a with so high a level of emission into the atmosphere.

4) Secondary refrigerants

Whatever solution is adopted, it is expected to get less refrigerant in equipment, a fact which provides new perspectives to the secondary refrigerants.

The International Institute of Refrigeration published in 1997 a book on "thermo physical properties of liquid secondary refrigerants".

Such data are not sufficient for professionals to conceive or to manage installations using secondary refrigerants. Thus, AFF has just published a book on how to select and how to use secondary refrigerants.

Concerning binary ice, Michel Barth, the president of the AFF commission, will tell you about special topic.

5) Updating of the French "white paper on refrigerants"

The French, acting as the Secretary of the Conseil National du Froid published in 2001, a "white paper on refrigerants" so as to define a common line for all parts of the profession and draw the attention of politicians and civil servants on the consequences of possible decisions concerning refrigerants, taking into account the new texts concerning global warming.