



# EFCTC NEWSLETTER

## An update on fluorocarbons and sulfur hexafluoride

**ISSUE 76 – April 2010**

### **MAIN REEFER CONTAINER CARRIER SELECTS HFC-134a MODEL BASED ON LABORATORY ANALYSIS AND OPERATIONAL TRIALS**

One of the main reefer container carriers worldwide recently upgraded its refrigerated fleet with 3,000 containers kept cooled by an [HFC-134a refrigeration](#) system, after independent laboratory analysis and operational trials.



A British consultant conducted operational trials and laboratory tests on various refrigeration units and recommended the HFC-134a system for its superior [energy efficiency](#). Environmental impact and lifecycle costs for refrigerated containers will be reduced.

The reduced power requirements also help ships to save fuel, thereby reducing their CO<sub>2</sub> emissions

Source: Manufacturer information.

### **HFC BLOWING AGENT NEEDED WHEN LOWER THERMAL CONDUCTIVITY FOAM IS REQUIRED**

[XPS](#) (extruded polystyrene) [insulating foams](#) for specific applications, requiring lower thermal conductivity, are made using [HFC](#) as blowing agent.

Guaranteed values for the thermal conductivity of CO<sub>2</sub>-blown foam are actually 10-20% higher than with HFC-blown foam, leading to an equivalent thickness increase to reach the same insulation effect.

Technical and economical reasons justify the choice for HFC-blown foam. Other foams with higher thermal conductivity foam involve higher material use, and in some cases are technically not usable.



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A [LCA](#) study has shown that any foam insulation gives a significant total energy savings and the differences are insignificant between systems in terms of the overall CO<sub>2</sub> emissions over the life time of a house, for example.

It is therefore recommended that the choice of blowing agents should remain open to the use of HFC blowing agents.

Source: Manufacturers Information

### **HFC CHILLER AWARDED TOP INNOVATION PRICE**

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Selected as probably the most efficient HFC-based chiller in the world, a newly developed chiller has received the Product Innovation of the Year award at the Chartered Institute of Building Services ([CIBSE](#)) Low Carbon Performance Awards 2010.



The new chiller was developed by UK companies in close cooperation with an Italian compressor manufacturer. Its outstanding low carbon performance will be an asset for users, improving their energy performance and associated CO<sub>2</sub> emissions.

The chiller was also recently awarded the “Environmental Pioneer – Air Conditioning and Environmental Collaboration of the Year” at the UK Cooling Industry Awards.

Source: [http://www.instalbiz.com/news/19-full-news-turbomiser-chiller-awarded-top-innovation-prize-at-cibse\\_390.html](http://www.instalbiz.com/news/19-full-news-turbomiser-chiller-awarded-top-innovation-prize-at-cibse_390.html)

### **FRENCH NEW DECREE ON AMMONIA USE AND TRANSPORT**

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French authorities have modified the 1998 decree (“arrêté”) setting general prescriptions for [ammonia use and storage](#).

In order to facilitate the introduction of [ammonia](#) as substitute in the replacement of [phased-out HCFC](#) systems, minimum safety distances have been reduced, but additional protection devices have been defined and will become mandatory.

Compared with the 1998 decree, a number of issues have been addressed, such as  
- Fire resistance of the buildings and fire fighting material;

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- fire brigades accessibility;
- revisited ammonia detection alarm limits;
- consistency with the [Pressure Equipment Directive](#).

The decree enters in force in April 2010.

For existing units these prescriptions will have to be implemented by September 2010.

Source: <http://www.wk-hsge.fr/actualites/detail/23519/emploi-et-stockage-d-ammoniac-les-nouvelles-prescriptions.html>

### NEW ON FLUOROCARBONS.ORG

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#### Position Paper

EFCTC [Position on HFOs - the new generation of fluorocarbons](#)

### NEW ON FIGAROO.ORG

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[Le Règlement](#) (in French)

#### Présentations

- ➔ [Contrôle des Emissions des HFC: Point de vue des Producteurs de Fluorés.](#)

Tim G.A. Vink Honeywell Fluorine Products  591 KB

- ➔ [Les HFC en Europe: Enjeux actuels et futurs](#)

Andrea Voigt, Directrice Générale EPEE.  266 KB


Source : [AFCE](#) Octobre 2009 - Colloque Effet de Serre

[Etude de Cas](#) (in French)

- ➔ [Réduction de la charge en fluide frigorigène: Les stratégies.](#)

Denis CLODIC, Sabine SABA CEP Mines-Paris Tech  4 MB

- ➔ [Exemple de progrès en grande distribution](#)

Remy RIVAL: Directeur développement & Applications Johnson Controls  3.9 MB

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### **NEW LINKS ADDED**

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#### **Useful Links – Applications of Fluorocarbons – Heat Pumps**

##### **European Heat Pump Association (EHPA)**

<http://www.ehpa.org/>

##### **Informationszentrum Wärmepumpen und Kältetechnik (in German)**

<http://www.izw-online.de/>

##### **Wärmepumpen in Industrie- und Großbauten - Energie sparen und Umwelt schützen (in German)**

<http://www.industrielle-waermepumpen.de>

##### **Ground Source Heat Pumps – best practice**

[http://www.groundmed.eu/hp\\_best\\_practice\\_database/](http://www.groundmed.eu/hp_best_practice_database/)

##### **DHC+ Technology Platform, research and innovation for district heating and cooling**

<http://www.dhcplus.eu/>

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