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The revision of Ambient Air Quality Directives

As part of the European Green Deal, the EU is revising relevant standards that aim to avoid build-up of excessive pollution concentrations and align them with recommendations of the World Health Organization (the latest Air Quality Guidelines of the WHO have been published on 22 September 2021). To this end, the Commission has published an Inception Impact Assessment to assess the impact of a possible revision of the Ambient Air Quality Directives (Directive 2008/50/EC, Directive 2004/107/EC, Directive 2015/1480/EC, Commission Implementing Decision 2011/850/EU), planned for 2022. Aiming to receive feedback from all citizens and stakeholders, an open public consultation will be running from 23 September till 16 December 2021.

Frigoblock Refrigerates UK's first fully electric large goods trucks

Frigoblock EK25R refrigeration unit enables multi-temperature large goods deliveries without serious compromise to the BEV's range and operational duty time. Frigoblock, one of the leading manufacturers of transport refrigeration units in Europe and a brand of Thermo King has announced it collaborated with NRG Riverside, one of the fastest-growing fleet management companies in the United Kingdom (UK), to create the

Cold chain technology brief: Vaccines

This IIR note provides an overview of the vaccine cold chain in general and COVID-19 in particular, its requirements and challenges. First, the effects of temperature on these vaccines, old and new, and their storage and transport requirements should be known. Second, the temperature-controlled logistics of vaccines in general and COVID-19 vaccines in particular, and the equipment and solutions used for their cold chain, must be analysed. Finally, if refrigeration is essential for our health as well as for our food, it must be sustainable, and it is therefore necessary to analyse the challenges to be met so that the cold chain for vaccines disrupted by COVID-19, is sustainable in the short, medium, and long term

Is the U.S. unitary market cooling after overheating?

According to AHRI, the shipments of residential unitary air conditioners in the first Half of 2021 are showing strong growth. How did the good performance of residential unitary systems arise? There were several possible factors. The first factor was that a large amount of money was released to the public as the U.S. government generated a large amount of public spending designed to rebuild the economy, which had been battered by the pandemic. The second factor was that people were interested in improving their living environments and comfort at home, since they could not go to work or attend school due to lockdowns and were spending more time at home because of the pandemic.

North African heat wave boosts the Southern European AC market

There is news from France that ongoing high and sometimes record temperatures are being experienced in North African countries such as Algeria, reaching 50°C in some areas. The temperature in northern Spain has reached more than 40°C. The French air-conditioning market has developed rapidly in recent years and has become one of the largest markets in Western Europe. JARN speculates that the French RAC market scale in the first half of 2021 is estimated to have increased by 11.5% compared with the same period of 2020, partly due to significant recovery in construction demand and capital investment.

JRAIA International Symposium Provides Guidance on Optimal Refrigerants

The JRAIA International Symposium, known as the Kobe Symposium, is organized by the Japan Refrigeration and Air Conditioning Industry Association (JRAIA) and has been held every other year since 1994. This symposium is attracting international attention as a place for governments, organizations, research institutes, universities, companies, etc. to present the latest information on the environment and refrigerants. Prior to the online event held on October 14 and 15 this year, JARN interviewed Tetsuji Okada, president, and Kazuhiro Hasegawa, senior manager of the Engineering Department, JRAIA, and asked about the main themes of the symposium and refrigerant trends.

Using recycled CO₂, Swedish milk-cooling system saves up to 50% in energy use

Swedish dairy equipment manufacturer Wedholms offers a CO₂ milk-cooling tank that it says saves up to 50% of the energy used for milk cooling on dairy farms, compared to traditional cooling systems, and uses CO₂ recycled from industrial processes, Wedholms announced in a post on LinkedIn. The patented CO₂ by Wedholms system is equipped with heat recovery providing above 70°C hot water. Heat recovery with CO₂ by Wedholms is three times more efficient than our traditional heat recovery in cooling systems with R134a and the system is capable of producing twice the amount of hot water needed to keep the tank clean. The CO₂ refrigerant is also among the most environmentally friendly options. Recycled CO₂ is a by-product from industry and by taking care of it, emissions are reduced. Heat recovery with CO₂ is three times more efficient than our traditional heat recovery in cooling systems with R134a” In addition, the system has electronic expansion valves and a user friendly control unit called Argos. The cooling system is delivered as a closed unit that can withstand harsh conditions both in the milk room and outdoors. The units are plug and play, meaning they can be installed up to 50% faster than traditional cooling systems. The tanks have volumes from 5,000 to 12,000 L and have up to six individual cooling zones. Each zone is controlled separately to better adjust the cooling needed. This guarantees optimum cooling of the milk for preserved milk quality.



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U.S. EPA announces final HFC allowance rule

In a long-awaited move that will set a new course for the U.S. HVAC&R industry, the U.S. Environmental Protection Agency (EPA) announced a final rule on September 23 establishing an allowance, allocation and trading program for HFCs under the American Innovation and Manufacturing (AIM) Act. Starting January 1, 2022, allowances will be needed to produce or import bulk HFCs, with limited exceptions. This action follows several years during which the Trump administration did not pursue HFC regulations, leaving the states to enact their own rules. Coming just four months after an initial proposal, the final rule opens the door for more proactive adoption of climate-friendly, natural refrigerant-based HVAC&R systems. The final rule will enable the EPA to separately phase down production and consumption of HFCs in the U.S. by 85% over the next 15 years. It aligns with the global HFC phase-down schedule set by the Kigali Amendment to the Montreal Protocol, which the U.S. Senate is expected to ratify this year. To prevent illegal trade in HFCs, EPA is coordinating with other federal agencies, in particular the U.S. Customs and Border Protection, via a new interagency task force. The new rule is the first of three regulations established under the AIM Act to address HFCs, part of the Biden Administration’s plans to cut greenhouse gas emissions by 50-52% from 2005



levels by 2030. The next two rules will address maximizing reclamation and minimizing releases from equipment; and facilitating the transition to next-generation technologies through sector-based restrictions. The total emission reductions of this first rule from 2022 to 2050 are projected to amount to the equivalent of 4.6 billion metric tons of CO₂ – nearly equal to three years of U.S. power sector emissions at 2019 levels, according to the EPA.

The Global R32 AC Market



When reviewing the 2020 global air conditioner market trends, it emerges that the shift to mildly-flammable (A2L) refrigerant R32 continues to accentuate and is becoming more far-reaching, in spite of the significant impact exerted by the COVID-19 pandemic. The global air conditioner market in both the residential and commercial sectors is estimated to have decreased by nearly 10% in 2020 compared with 2019. On the contrary, demand for R32 air conditioners is estimated to have increased by about 10%. The number of countries where R32 units account for the majority of the split-type room air conditioner (RAC) market is increasing, mainly in Asia, Europe, and Oceania. The penetration of R32 units in the entire global split-type RAC market including Japan is estimated to have reached over 50% in 2020..

IIR proposed rate is 104 euros per year, compared to 192 euros for a standard membership.

The International Institute of Refrigeration are pleased to offer a membership at a reduced rate for people **born before 1957**, so that you can continue to receive IIR services, even if you are retired from your professional activities. To benefit from it, please [log in](#) to your personal space. Your login is the e-mail address on which you receive this message.



Electricity curtailment hits AC production in China

Electricity rationing and production suspension are sweeping across many provinces, including Jiangsu, Zhejiang, Shandong, Guangxi, Yunnan, etc. Some cities have notified factories that they must operate three days a week and stop four days. The Yangtze River Delta area and Shandong are both important bases for China's air-conditioning production. Facing electricity rationing, many Chinese AC manufacturers are not readily accepting orders from overseas. Foreign-funded AC companies in China have been affected because of the global supply chain. Some parts orders have been turned to Chinese domestic companies, causing domestic parts supply to become tighter.

REHVA Brussels summit



We are delighted to invite you to the REHVA Brussels Summit

mit 2021 Policy Conference, held online on the 4th November 2021. This year's conference "**Fit for 55 - the bumpy road to decarbonising the EU building stock**" will give an overview of the changing EU policies on building decarbonisation presented by high level speakers from the European Commission and discuss practical tools and frameworks helping policy implementation to deliver a decarbonised European building stock. Contact us for any further information about the Brussels Summit 2021 at info@rehva.eu.