

OzoNews

A fortnightly electronic news update on ozone and climate protection and the implementation of the Montreal Protocol brought to you by OzonAction

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GLOBAL

Obituary: Margaret Aanyu (1963 – 2025)



On behalf of UNEP OzonAction, we are deeply saddened by the passing of Ms. Margaret Aanyu, former National Ozone Officer of Uganda.

Ms. Aanyu dedicated many years to advancing the objectives of the Montreal Protocol and played a pivotal role in overseeing Uganda's national activities. She was an active member of the African Regional Network of ozone officers and represented the region in the Montreal Protocol bodies. Her commitment and professionalism greatly contributed to the success of our shared mission.

We extend our heartfelt condolences to her family, her colleagues at the National Ozone Unit, National Environment Management Authority, Uganda.

Source: OzonAction | Image by Photo by IISD/ENB | Anastasia Rodopoulou

Related: [Ozone Secretariat](#)

Obituary: Cornelius Rhein (1967 – 2025)



UNEP OzonAction is deeply saddened by the untimely passing of Mr. Cornelius Rhein from the European Commission.

Throughout the years, Mr. Rhein was an invaluable partner in advancing Montreal Protocol initiatives. His expertise and dedication left a lasting impact on our work and the global environmental community.

We offer our deepest sympathies to his family and his colleagues at the European Commission during this difficult time.

Source: OzonAction | Photo by IISD/ENB | Mike Muzurakis

Related: [Ozone Secretariat](#)

1. Kigali Amendment latest ratifications

Congratulations to the latest countries that have ratified the Kigali Amendment:

[Mauritania, 11 November 2025](#)

[Central African Republic, 15 October 2025](#)

[Pakistan, 22 October 2025](#)

[Brunei Darussalam, 18 September 2025](#)

[Saudi Arabia, 10 September 2025](#)

[St. Kitts and Nevis, 29 August 2025](#)

[Nepal, 6 August 2025](#)



At the Twenty-Eighth Meeting of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, held in Kigali from 10 to 15 October 2016, the Parties adopted, in accordance

with the procedure laid down in paragraph 4 of article 9 of the 1985 Vienna Convention for the Protection of the Ozone Layer, a further amendment to the Montreal Protocol as set out in Annex I to the report of the Twenty-Eighth Meeting of the Parties (Decision XXVIII/1).

Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, Status of Ratification 15 October 2016 to date.

Source/image: [UN Treaty Collection](#)

2. OzonAction side event at MOP37: Ask an Expert

Nairobi, Kenya, 6 November 2025 – The Ask an Expert sessions held during the Thirty-Seventh Meeting of the Parties (MOP-37) to the Montreal Protocol at UNEP Headquarters proved to be a highly successful initiative, offering participants personalized, practical one-on-one guidance on various aspects of implementing the Montreal Protocol. These interactive exchanges allowed attendees to engage directly with leading experts, clarify technical and policy-related questions, and deepen their understanding of key issues.



A session on 4 November 2025 focused on customs-related matters, national legal frameworks, and transboundary movements of controlled substances. Experts included Ms. Anna Kobylecka (World Customs Organization), Ms. Renee Gift (UNEP Law Division, Montevideo Programme), and Ms. Yvonne Ewang-Sanvincenti (Secretariat of the Basel, Rotterdam and Stockholm Conventions). The interactions helped to direct attendees to available WCO tools resources and clarify certain aspects of risk management, clarify certain aspects of the transboundary movements of end-of-life substances and explain legal assistance available to the National Ozone Units through the cooperation between OzonAction and the Montevideo Programme and finally, look into cooperation between National Ozone Officers and legal experts responsible for drafting and approval of the national legislation.

On 5 November 2025 the OzonAction organized three sessions dedicated to gender considerations, energy efficiency and cold chain. The gender related session addressed gender consideration in Montreal Protocol activities and project implementation. Experts Ms. Rossana Silva Repetto (Deputy Chief Officer, MLF Secretariat), Mr. Raymond Brandes (UNEP Gender Officer), and Ms. Sonja Wagner (UNEP OzonAction Gender Focal Point) discussed how

gender-responsive approaches can enhance the effectiveness of Montreal Protocol activities, including initiatives that promote women's participation in the RAC Sector and training programmes targeting female technicians.

In the session on energy efficiency experts Mr. Bassam Elassaad (TEAP Senior Expert Member), Mr. Patrick Blake (UNEP U4E), and Mr. Balaji Natarajan (MLF Secretariat) explored strategies to enhance energy performance in refrigeration and cooling technologies. The discussion emphasized the importance of aligning energy efficiency goals with both the phase-out and phase-down of controlled substances under the Protocol. The experts also underscored the critical role of national policies, including the adoption of Minimum Energy Performance Standards (MEPS) and energy labelling schemes, in driving market transformation. Additionally, they highlighted the availability of funding windows under the Multilateral Fund (MLF) to support energy efficiency measures in the RAC sector and stressed the need for close collaboration between National Ozone Officers and Energy Efficiency officials to ensure integrated planning and long-term sustainability.

In the session on the cold chain, a critical component for food preservation and vaccine distribution was emphasized. Dr Yosr Allouche (IIR Director General), Dr Silvia Minetto (President of the IIR Sub Commission on Refrigerated Transport), and Mr. Bas Hatterscheid (IIR Commission Member and Project Leader at Wageningen University) shared insights on optimizing cold chain infrastructure while minimizing environmental impact. Discussions covered innovations in refrigerated transport, best practices for developing countries, and integrating climate-friendly technologies into cold chain systems.

These expert-led sessions were part of UNEP OzonAction's Compliance Assistance Programme, supporting countries in meeting their obligations under the Montreal Protocol and the Kigali Amendment. These sessions fostered collaboration among stakeholders and provided valuable insights into the practical implementation of the Protocol. The overwhelmingly positive feedback received has led to plans to repeat the Ask an Expert format at future Open-Ended Working Groups (OEWGs) and Meetings of the Parties (MOPs).

Source/image: [UNEP OzonAction](#), 10 November 2025

3. Experts Convene at MOP37 to Tackle Cold Chain Challenges in Hot Climates



Nairobi, Kenya, 3 November 2025 – At the 37th Meeting of the Parties to the Montreal Protocol (MOP37), [UNEP OzonAction](#) and the [International Institute of Refrigeration](#) (IIR) hosted a dynamic side event focused on developing sustainable cold chain technologies in hot climates. Held at UNEP Headquarters in Nairobi, the session brought together leading researchers, government officials, and technical experts to explore innovative solutions for cold storage and refrigerated transport.

The event, titled “Cold Chain Technologies in Hot Climates: From Storage to Transport,” highlighted the critical role refrigeration plays in reducing food loss, improving public health, and supporting climate goals. With over 12% of global food production lost annually due to inadequate refrigeration, the need for resilient and energy-efficient cold chains has never been more urgent.

Jim Curlin, Head of UNEP OzonAction, opened the session by welcoming participants and highlighting the significance of the side event as a key moment in the global effort to strengthen cold chain systems in hot climates. He emphasized the importance of UNEP's ongoing cooperation with the International Institute of Refrigeration (IIR), which has resulted in the development of four Cold Chain Technology Briefs. These resources aim to support Article 5 countries with practical guidance on sustainable refrigeration solutions and serve as tools for capacity building, policy development, and regional collaboration. Souhir Al-Hammami of IIR set the scene by emphasizing that the cold chain is a critical link in the food value chain for reducing waste, preserving quality, and supporting food security. She highlighted how sustainable cold chain systems connect climate action with economic growth, enabling market access and rural development.

The session included the following technical presentations, which showcased practical innovations:

- Dr. Alan Foster (London South Bank University and member of IIR D1 commission: Refrigerated Storage) discussed walk-in cold rooms (WICRs) for developing countries, highlighting passive cooling, thermal energy storage, and natural refrigerants.
- Dr. Silvia Minetto (Italian National Research Council and President of IIR D2 commission: Refrigerated Transport) addressed refrigerated transport, presenting data on vehicle performance in extreme heat and sustainable design options.
- Aline Uwasempabuka, National Ozone Officer for Rwanda, shared her country's experience in building a robust cold chain ecosystem. Rwanda's initiatives include the Rwanda Cooling Initiative, the National Cooling Strategy, and the Africa Centre of Excellence for Sustainable Cooling and Cold Chain (ACES), which trains technicians and supports solar-powered technologies.

The event concluded with a dynamic panel discussion and Q&A session, moderated by Sonja Wagner (UNEP OzonAction), which generated strong interest and active participation from the audience. Attendees raised a wide array of insightful and technically nuanced questions—ranging from the operational challenges of deploying solar-powered walk-in cold rooms in tropical climates, to the safety protocols for handling hydrocarbon refrigerants, and experience with training sessions organised in Rwanda. The event wrapped up with closing remarks from Dr. Yosr Allouche, Director General of IIR, who emphasized the vital role of cold chains in safeguarding human well-being and dignity. Ensuring the long-term sustainability of the sector requires a simultaneous and integrated approach: deploying low-GWP refrigerants, strengthening energy efficiency, and structuring the sector with robust governance so that all national stakeholders, from environment and energy authorities to broader sectors, can work together.

Participants were invited to continue the conversation through the [upcoming UNEP/IIR webinars on refrigeration across all sectors, including marine cooling and transport innovations](#).

Key takeaway: Strengthening the cold chain infrastructure is not just about cooling—it's about transforming food systems, protecting health, and powering economies in a warming world.

Source/image: [UNEP OzonAction](#), 4 November 2025

RELATED :

[Summary report of MOP37, 3–7 November 2025](#) | Source: IISD

[An urgent need to reduce emissions – our report on the 37th Meeting of the Parties to the Montreal Protocol](#) | Source: EIA

4. Enforcement of the Montreal Protocol: From Policy to Action to Combat Illegal Trade: International partners share progress and best practices at MOP37



Nairobi, Kenya, 4 November 2025 – The side event on “Enforcement of the Montreal Protocol: From Policy to Action to Combat Illegal Trade” was held during the Thirty-Seventh Meeting of the Parties (MOP-37) to the Montreal Protocol at UNEP Headquarters.

Co-organised by the Ozone Secretariat, the World Customs Organization (WCO) and UNEP OzonAction, the side-event brought together governmental representatives, both from the environmental sector and customs and intergovernmental international and regional enforcement agencies and a civil society organization to share experiences and best practices on preventing and combatting illegal trade in ozone-depleting substances (ODS) and hydrofluorocarbons (HFCs).

The side-event provided an opportunity to dive deeper into the matters discussed at the [Informal meeting](#) on facilitating implementation of the Montreal Protocol held on 2 November 2025 which highlighted the role of international organizations as convening platforms in combatting illegal trade; the need for a broader use of PIC by Parties, the importance of effective licensing systems for combating illegal trade, their digitalization and linkage to customs single window, customs operated standard operating procedures to control shipments, risk management, and continuing strengthening of national cooperation between National Ozone Units/Focal points, customs, and law enforcement entities.

Opening the event, Ms. Patricia Mbote, Director of UNEP’s Law Division, highlighted that “almost 40 years after its adoption, the Montreal Protocol continues to stand as one of the most successful environmental treaties, uniting countries around a shared goal of protecting the ozone layer and mitigating climate change.” She underscored that effective enforcement and strong national legal frameworks are essential to sustaining this success.

Moderated by Mr. James Curlin, Head of Branch of UNEP OzonAction, the discussion featured speakers from WCO, Europol, the European Commission Anti-Fraud Office (OLAF), the

Environmental Investigation Agency (EIA), the Secretariat of the Basel, Rotterdam and Stockholm conventions, and national representatives from the Kenya Revenue Authority and the National Ozone Unit of Sri Lanka. Presenters emphasised the importance of collaboration between National Ozone Units, customs and enforcement authorities in ensuring compliance and tackling illegal trade.

The event also reviewed new and ongoing cooperation through initiatives such as:

- Standard Operating Procedures (SOPs) for customs, developed by WCO in cooperation with UNEP OzonAction to strengthen monitoring, detection and risk management as launched at the side-event;
- Legal advisory support provided by UNEP's Law Division under the Montevideo Programme to help countries enhance legislation and enforcement capacity, also launched at the side-event; and
- Capacity building and information exchange through UNEP OzonAction's Compliance Assistance Programme (CAP), supporting Article 5 countries in implementing the Montreal Protocol and Kigali Amendment.

Highlighting the relevance of this collaboration, Mr. Curlin noted: "This side event illustrates tangible results of international cooperation in combating illegal trade. By connecting enforcement officers, legal experts, and National Ozone Units, we are ensuring that capacity building is translated into real-world impact. OzonAction remains committed to strengthening compliance through training, partnerships and knowledge exchange."

Concluding the event, participants reaffirmed their commitment to promoting a culture of compliance and furthering collaboration to prevent environmental crime, ensuring that the Montreal Protocol continues to serve as a model of effective multilateral environmental action.

Presentations can be available upon request.

Source/image: [UNEP OzonAction](#), 12 November 2025

5. AHRI to Host Leadership Roundtable at the HVACR World 2025



The HVACR World 2025 conference will take place between November 24–27, 2025, at the Dubai World Trade Centre

The [Air-Conditioning, Heating, and Refrigeration Institute \(AHRI\)](#) will endorse [HVACR World 2025](#), a regional platform dedicated to advancing innovation and energy efficiency across the Middle East, Africa, and South Asia (MEASA). The event will take place from November 24 to 27, 2025, at the Dubai World Trade Centre.

On November 24, AHRI will host its annual Leadership Roundtable, themed "Staying Ahead of the Climate Compliance Curve." This event brings together top regional executives representing AHRI

member companies. It provides a strategic platform for leaders to exchange insights on emerging challenges, market trends, and policy developments across the MEASA region.

The Roundtable on AHRI's Latest Initiatives

The Leadership Roundtable will feature several speakers, including representatives from the Ministry of Electricity and Water, [Kuwait](#) (MEW), and the UN Environment Programme (UNEP), who will share insights on regional policy approaches and sustainability priorities shaping the industry.

AHRI members will also have the opportunity to hear directly from AHRI President and CEO Stephen Yurek, Senior Vice President of Global Services Henry Hwong, and the AHRI MENA team. Together, they will provide updates on AHRI's latest global and regional initiatives, strategic objectives, and ongoing efforts to support energy efficiency, standardization, and market transformation.

Integrating Transition Strategies Into Real Life Plans

On November 25, AHRI, in collaboration with UNEP, will host the technical workshop titled "Advancing the Refrigerant Transition." This session will welcome government representatives, policymakers, industry leaders, technical experts, and international partners to forge a unified path forward for sustainable cooling.

Beyond technical discussions, the workshop will serve as a platform to integrate refrigerant transition strategies into national climate and energy-efficiency plans, advance sustainable recovery and reclamation practices, and promote regional cooperation by establishing a GCC Refrigerant Transition Task Force.

AHRI will also lead technical sessions on regulations and standards during HVACR World, providing updates on certification programs, testing protocols, and compliance frameworks. The association looks forward to welcoming all industry partners to Dubai this November, as we work together to shape a smarter, more sustainable MEASA.

Source/image: [Mechanical Electrical Plumbing](#), 3 November 2025

6. GCI Webinar #5: Green Heating and Cooling

26 November 2025, 12:00pm - 1:00pm UTC

Natural refrigerants have powered cooling and heating systems for decades — from food and beverage production, cold storage, and pharmaceuticals to industrial processing, commercial HVAC, and beyond. Their performance in Europe and elsewhere proves they can deliver high energy efficiency with zero ozone-depleting potential and no global warming potential (GWP). As global energy systems decarbonize, natural refrigerants such as ammonia, CO₂, and hydrocarbons are emerging as the future-proof backbone of sustainable heating and cooling.

The webinar will open with a strategic overview of the role of natural refrigerants from the perspective of euraammon, followed by insights from the renovation of the European Patent Office in Vienna — a case study of how ammonia-based heat pumps transformed an outdated building into a model of climate-conscious innovation. Learn how renovation and retrofitting with natural refrigerants can cut emissions, conserve resources, and future-proof existing infrastructure, showcasing a strong commitment to sustainability and CO₂ neutrality through smart reuse and efficient design.

[Agenda and registration](#)

Source: [Green Cooling Initiative](#), November 2025

7. **A Turning Point for Methane: Leaders Move to Pull the Climate Emergency Brake at COP30**

The United Kingdom and Brazil launched a “Super Pollutant Country Action Accelerator” under the Climate and Clean Air Coalition (CCAC) to drive rapid cuts in methane, HFCs, and air pollutants that cause warming across 30 developing countries by 2030, with an initial \$25 million funding package for 7 countries to kick-start implementation.

Led by the United Kingdom, the Statement “Drastically Reducing Methane Emissions in the Global Fossil Fuel Sector” was signed by Canada, France, Germany, Japan, Kazakhstan, Norway, and the United Kingdom, with support from the European Commission, IEA, and OLADE.



Belém, 9 November 2025 – Brazil, China and the United Kingdom, with support from the COP30 Presidency, co-hosted a methane summit, bringing together representatives from Barbados, France, Germany, the Climate and Clean Air Coalition, and Bloomberg Philanthropies. The summit launched a set of landmark initiatives to accelerate global action on methane and other non-CO₂ greenhouse gases - the fastest, most effective way to slow the pace of climate change and deliver immediate benefits for air quality, food security, and public health.

Together, these announcements signal a new era of cooperation, transparency and responsibility to cut methane and other non-CO₂ gases through aligned regulation, fast mitigation, and fairer markets.

In their discussions, leaders underscored the urgent need to tackle the “other half” of climate change, including methane, nitrous oxide, hydrofluorocarbons (HFCs). Leaders highlighted how countries are taking action both at home and internationally to accelerate reductions in methane and other non-CO₂ greenhouse gases, and reaffirmed that trust, partnership, and shared responsibility are essential to move faster together - a true *mutirão* for methane.

Marina Silva, Brazil’s Minister of the Environment and Climate, alongside the Rt. Hon. Ed Miliband, UK Secretary of State for Energy Security and Net Zero, announced the launch of a multi-year [“Super Pollutant Country Action Accelerator”](#) under the CCAC, to fast-track deep reductions in methane and HFCs amongst others, across 30 developing countries by 2030. It will establish dedicated National Super Pollutant Units, modelled on the successful Montreal Protocol’s Ozone Units, to embed sustained action within government institutions. The first cohort of seven countries, including Brazil, Cambodia, Indonesia, Kazakhstan, Mexico, Nigeria, and South Africa, will receive an initial \$25 million support package. The initiative aims to mobilize \$150 million over its first phase and deliver coordinated, high-impact implementation aligned with national priorities for immediate benefits for public health, agriculture, and economic resilience, while reinforcing global momentum for near-term climate action. [Continue reading...](#)

Source/image: [Climate & Clean Air Coalition](#), 9 November 2025

Related: [A step closer to worldwide action on methane and other climate-harming gases!](#)

Source: EIA

AFRICA

8. Towards a Safer, More Sustainable Chemicals and Waste Management in Africa

The Chemicals and Waste Hub at the United Nations Development Programme (UNDP) focuses on reducing the harmful impacts of hazardous chemicals, plastic pollution, and waste on people and the planet. Working closely with countries, the Hub helps accelerate the shift to sustainable production and consumption by promoting safer alternatives, strengthening policies, and supporting the transition to a circular, low-carbon, and pollution-free economy.



In Africa, the Hub works in partnership with UNDP Country Offices through the Regional Service Centre for Africa. Together, they support governments, industries, and communities in managing chemical and waste more effectively—helping countries meet their international commitments while protecting health, ecosystems, and livelihoods.

This brochure presents UNDP's Chemicals and Waste portfolio in Africa, providing an overview of current projects that reduce hazardous chemicals, phase out ozone-depleting substances, promote sustainable cooling and energy efficiency, and advance circular economy and zero-waste solutions. The portfolio highlights UNDP's collaboration with partners across 26

countries, contributing to cleaner production, healthier ecosystems, and resilient, low-carbon development across the continent.

Source/image: [UNDP Chemicals and Waste Hub](#), 31 October 2025

ASIA AND THE PACIFIC

9. China hosts Training on Good Servicing Practices for cold storage applications and safe handling of natural refrigerants



Guangzhou, China, 10 November 2025 – UNEP OzonAction successfully convened an international training workshop titled “*Good Servicing Practices for Cold Storage Applications and Safe Handling of Natural Refrigerants*” in Guangzhou, China, from **4 to 7 November 2025**.

This specialized training was jointly organized by the OzonAction Compliance Assistance Programme (CAP) for South Asia, in close collaboration with the Government of China, represented by the Foreign Environmental

Cooperation Center (FECO) of the Ministry of Ecology and Environment (MEE), and the Chinese Association of Refrigeration (CAR).

The workshop formed part of the implementation plan under Stage II of China's HCFC Phase-out Management Plan (HPMP), specifically within the refrigeration servicing sector. This initiative is funded by the Multilateral Fund for the Implementation of the Montreal Protocol.

As part of China's commitment to South-South cooperation within the Asia-Pacific region, the initiative extended a warm invitation to refrigeration technicians from across the globe. In total, 20 technicians and trainers—comprising 19 men and 1 woman—from 13 countries spanning Asia, Africa, and the Pacific participated in the programme. The countries represented included Bangladesh, Bhutan, Botswana, Brunei Darussalam, Cambodia, Iran, Maldives, Mongolia, Solomon Islands, Turkmenistan, Vanuatu, Zambia, and Zimbabwe.

Over the course of four days, the programme provided comprehensive instruction on general good servicing practices (GSPs) in refrigeration, with a particular focus on the safe handling of cold storage systems utilizing natural refrigerants. These included ammonia (NH₃) and ammonia–carbon dioxide cascade (NH₃/CO₂) systems, which are increasingly recognized for their environmental benefits and energy efficiency.

The training was facilitated by esteemed professors from Anhui University of Applied Technology and Shunde Polytechnic University in Guangzhou, alongside Mr Cesar Luis dL. Lim, representing ASHRAE and Kelvin Design & Engineering Company. Shunde Polytechnic University generously hosted the practical sessions at its dedicated training centre. At the end of the training course, each participant was awarded a certificate.

UNEP OzonAction extends its sincere appreciation to the Multilateral Fund of the Montreal Protocol and the Government of China for making this valuable opportunity possible. It is hoped that the knowledge and practices shared during the training will support participating countries in safely transitioning to natural refrigerants, aligning their national strategies with the goals of the Kigali Amendment, and fostering a sustainable and resilient refrigeration servicing sector.

Source/image [OzonAction](#), 10 November 2025

EUROPE AND CENTRAL ASIA

10. End-of-year milestone on phase-out of halon extinguishers

On December 31, 2025, the aviation community will reach its first major milestone in legislation for the protection of the ozone layer, which requires aircraft to be equipped with halon-free portable fire extinguishers. EASA is continuously providing technical support and guidance needed to implement this requirement.

One of EASA's strategic priorities is the adoption of measures to improve the sustainability of European aviation. To comply with its obligations under the Montreal Protocol with regard to protection of the Ozone Layer, the EU adopted legislation that has phased out the consumption of ozone depleting substances. This provided the long-term framework for legislative and

practical action to protect the ozone layer. and established the EU as a world leader on ozone layer protection policy. This legislation is laid out in Regulation (EU) 2024/590.

According to Article 9 and Annex V to Regulation (EU) 2024/590 any in-service aircraft registered in the EU or operated by an operator registered in the EU must be equipped with halon-free portable fire extinguishers. Halons can no longer be used in portable fire extinguishers for the protection of aircraft cabins and crew compartments.

EASA has developed ETSO-2C515 A1 (Aircraft Halocarbon Clean Agent Handheld Fire Extinguisher dated 25.07.2020) that provides the requirements which an aircraft halocarbon clean agent handheld fire extinguisher must meet to be identified with the applicable ETSO marking. The Agency has also recently published certification memorandum CM-CS-013 Issue 01 to provide guidance on the certification of the installation of Halon-free handheld fire extinguishers on CS-23, CS-25, CS-27, and CS-29 aircraft and to support in complying with the end-date of the Ozone Regulation.

Regulation (EU) 2024/590 is not airworthiness-related legislation. An infringement of Regulation (EU) 2024/590 with regard to halon fire extinguishers on aircraft beyond the envisaged end-date would not have an impact on the aircraft's airworthiness. There are also no grounds under Regulation (EU) 2018/1139 that would oblige Member States to ground an aircraft for non-compliance with the end-date referred to in Regulation (EU) 2024/590. Please note in this respect, that in accordance with Part-26 of Annex I to Regulation (EU) 2015/640, operators of large helicopters and large aeroplanes shall ensure that portable fire extinguishers do not use halon as an extinguishing agent where the individual certificate of airworthiness is first issued on or after May 18, 2019.

Note: Under Article 9(4) of Regulation (EU) 2024/590, derogations from cut-off and end dates may be granted in specific cases where it is demonstrated that no technically and economically feasible alternative is available. Such derogations can be granted only by the European Commission at the request of the competent authority of a Member State (individual companies may not submit derogation requests directly to the Commission). EASA is not the competent authority for granting such derogations.

Source: [EASA](#), 6 November 2025

11. Reforms to go further in phasing down of harmful greenhouse gases

Consultation launched on a more ambitious phase-down of hydrofluorocarbons commonly used in refrigeration, air-conditioning and heat pump systems



Harmful greenhouse gases used in commercial and industrial refrigeration, and in air conditioning and heat pump units will be phased down more quickly and extensively under ambitious plans outlined today (Wednesday 5 November) by the Government to reduce emissions and accelerate to net zero.

Hydrofluorocarbons (HFCs) are manufactured gases primarily used as the refrigerant gas in commercial and industrial refrigeration and in air-conditioning and heat

pump systems.

HFCs have an [average lifespan of 15 years in the Earth's atmosphere](#). With the gases having a global warming effect hundreds of times higher than carbon dioxide, these reforms complement existing legislation that is reducing their use and emissions.

A consultation launched today will propose achieving an almost full phase-out of HFCs by 2048, a 98.6% cut with changes being introduced from 2027. This goes much further than the current target of cutting the amount coming onto the market by 79% by 2030.

Many air conditioning unit and heat pump manufacturers already offer units that use alternative gases, and the phasedown proposal will provide the industry time and support to transition more completely to those alternatives.

Environment Minister Emma Hardy said:

"Hydrofluorocarbons are among the most powerful greenhouse gases, and strengthening their phasedown is an important step towards achieving our net zero goals.

These proposals will result in a near-total elimination of these harmful gases coming onto the market while supporting the rollout of clean heating technologies like heat pumps, ensuring we continue to deliver on both our domestic and international climate commitments."

The [consultation](#) – which closes on 17 December – seeks views from industry and stakeholders on the detailed design of the revised phasedown and its implementation. The proposal has been developed based on ongoing engagement with industry.

The proposed reforms will result in even greater carbon emissions savings than from the current phasedown, supporting the UK Government's Clean Energy and Net Zero Mission and ensuring the nation continues to meet its international obligations under the Montreal Protocol.

HFCs are used as the refrigerant gas in heat pumps. These proposals will ensure there are still enough HFCs quota available to support the rollout of heat pumps, with manufacturers and importers getting sufficient allocation early on to allow time for them to move to alternatives. This will ensure a smooth transition to products that use cleaner gases with lower global warming potential in the long run.

Source: [GOV.UK](#), 5 November 2025

NORTH AMERICA

12. Progress Postponed: Understanding EPA's Proposed Changes to Refrigerant Rule

EPA considers extending compliance deadlines under its Technology Transitions rule

On September 30, the U.S. Environmental Protection Agency (EPA) proposed [changes](#) to its Technology Transitions Rule (TTR) as part of its broader efforts to "reconsider" existing climate policies. It also factored in recent objections to the original rule, namely by the FMI | The Food Industry Association, which claimed



in a [lawsuit](#) that the original compliance deadlines placed excessive burdens on small grocers making the refrigerant transition.

Stakeholders in the HVACR industry have until November 17 to [comment](#) on the proposal.

Original TTR

The EPA finalized its original [TTR in 2023](#), under the authority of the AIM Act of 2020. The rule established sector-based GWP limits across all key HVACR-related equipment sectors that use high-GWP HFC refrigerants.

The framework of the original TTR was the culmination of a decade-long process of phasing down HFCs globally and in the U.S. As a result, it incorporated direct feedback and recommendations from stakeholders across all sectors, including food retail, where many are actively working toward their own corporate sustainability goals.

Per the TTR's compliance deadlines, some key regulations have already taken effect in 2025. These include the 700 GWP limit on residential and light commercial air conditioning and heat pump equipment, and the 150 GWP limit on self-contained refrigeration.

Recent data suggests that these sectors have not only transitioned successfully to lower-GWP refrigerants but are also experiencing associated business benefits. For example, Heating, Air-conditioning & Refrigeration Distributors International (HARDI) reported that as of July, 82% of air conditioning and heat pump shipments were for A2L-based equipment — up from 13% in January. A recent ATMO [report](#) also noted that 4.6 million self-contained R-290 cabinets are installed in North America.

Although the new EPA proposal upholds the sector-based GWP limits of those that have already taken effect, it recommends significant delays for transitions that had been planned for the next several months. [Continue reading...](#)

Source/image: [The ACHR News](#), 5 November 2025

WEST ASIA

13. Oman Strengthens National Capacity for Refrigerant Management and Montreal Protocol Compliance



Muscat, Sultanate of Oman, 23 October 2025 – The UN Environment Programme (UNEP) OzonAction Compliance Assistance Programme (CAP) West Asia team, in collaboration with the National Ozone Unit (NOU) of the Sultanate of Oman under the Environment Authority, successfully concluded a national capacity building programme on refrigerant management and compliance with the Montreal Protocol and its Kigali Amendment.

Held in Muscat from 19 to 23 October 2025, the programme featured two consecutive technical workshops aimed at strengthening the Sultanate's capacity in refrigerant management and enforcement: (1) **a Training of Trainers for Customs Officers on Good Practices for Sustainable Compliance with the Montreal Protocol and its Amendments** (19–20 October, Customs Training Center, Muscat); and (2) **a Training of Trainers and Technicians on Good Practices and Safe Handling of Refrigerants, Leak Detection, and Assessment Method for Certification** (22–23 October, Bahwan Engineering Company, Muscat). The workshops were both financed by the Multilateral Fund for the implementation of the Montreal Protocol.

Sixteen Customs officers were trained in monitoring and controlling imports and exports of controlled substances, identifying ozone-depleting substances (ODS) and hydrofluorocarbons (HFCs), and applying inspection procedures to prevent illegal trade. Twenty-four engineers, supervisors, and trainers from Bahwan Engineering Company and the University of Technology and Applied Sciences received hands-on training on leak detection, safe handling of flammable refrigerants, recovery and recycling techniques, and assessment methods to support the development of a national certification system for refrigeration and air-conditioning (RAC) technicians.

These activities reaffirm Oman's commitment to sustained compliance with the Montreal Protocol and to advancing the transition toward low-global-warming alternatives. They also strengthened collaboration among enforcement bodies, industry, and training institutions, laying the groundwork for a more coordinated and sustainable approach to refrigerant management.

Participants valued the interactive and practical format, which combined technical discussions with live demonstrations and assessments. The outcomes are expected to translate into improved customs control and servicing practices, supporting Oman's progress toward environmentally sound and climate-resilient cooling.

Source/image: [UNEP OzonAction](#), 23 October 2025

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