

OZONE BULLETIN



2023

“FIXING THE OZONE LAYER AND REDUCING CLIMATE CHANGE”



2023

ACTIVITIES

15 FEBRUARY 2023

16 MARCH 2023

9 MAY 2023

Ozone2Climate Technologies
in Refrigeration and Air-
Conditioning Sector

6 MARCH 2023

Kigali Implementation Plan
for HFC Phase Down
Consultation Workshop

13-16 JUNE 2023

17-20 OCTOBER 2023

Training on Control of ODS

23 JUNE 2023

Engagement Session with
HFC Importers for
Preparation Of Kigali
Implementation Plan (KIP)

3 OCTOBER 2023

World Ozone Day 2023
National Level celebration

23 – 25 AUGUST 2023

25–27 OCTOBER 2023

Workshop on Reviewing the
Training Module for Certified
Technician Program (CSTP) for
the Refrigeration and Air-
Conditioning (RACs) Sectors
under the HCFC Phase-out Plan
Level-II.

8 SEPTEMBER 2023

Seminar on Safety and
Sustainability in Polyurethane
Foam

20–23 SEPTEMBER 2023

Workshop on the Enforcement of
Refrigerant Management and
Motor Vehicle Regulations

11 NOVEMBER 2023

Capacity Building for ODS
Sampling and Testing

28-30 NOVEMBER 2023

Training of Master Assessor on
Competency-Based Assessment
on Good Servicing Practices in
Refrigeration and Air-
Conditioning Servicing Sector

STATISTIC 2023

TECHNOLOGY CONVERSION PROJECT FOR FOAM MANUFACTURING INDUSTRY (HPMP II)

42 - PU Enterprise converted from HCFC to non-ODS technology

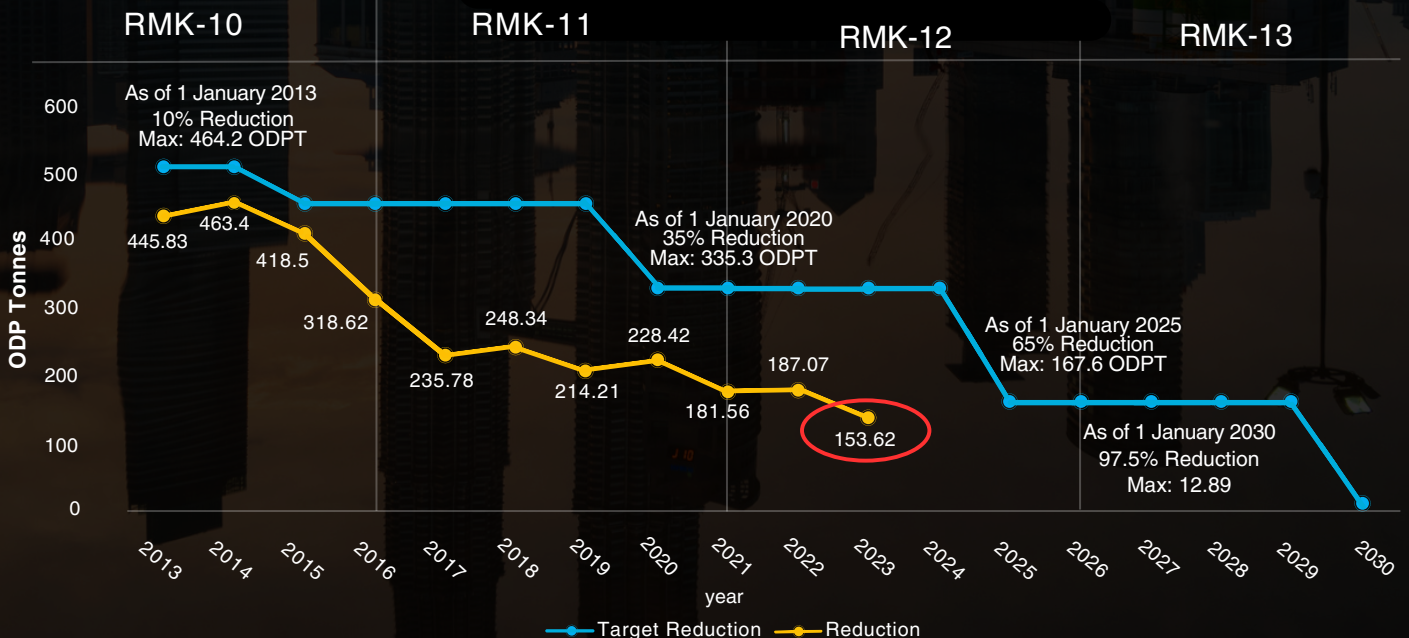
IMPORT AND EXPORT PERMIT APPLICATIONS

Type	Import	Export
HCFC	172	2
HFC	1120	258
RECYCLED HALON	1	0

CERTIFIED SERVICE TECHNICIAN PROGRAMME (CSTP)

-  Number of training: 241
-  Number of ATC: 64
-  Number of Master Trainers: 342
-  Number of Certified Technicians: 3,695

HCFC REDUCTION



HFC PHASEDOWN OBLIGATIONS

2024	2029	2035	2040	2045
Freeze at baseline of 26.7 mil tCo2eq	10%	30%	50%	80%

ROADSHOW: OZONE2CLIMATE TECHNOLOGIES IN REFRIGERATION AND AIR-CONDITIONING SECTOR



The roadshow on "Ozone2Climate Technologies in Refrigeration and Air-Conditioning Sector" continued in 2023 for Kuching (15 February), Kota Kinabalu (16 March), and Pulau Pinang (9 May 2023). The objective is to promote ozone-friendly and low-carbon refrigeration and air-conditioning technologies.

The roadshow is a part of program under HPMP II. This proactive measure represents a significant step toward mitigating the negative impacts of climate change and encouraging the adoption of more environmentally friendly technologies. Additionally, it enhance awareness and knowledge within Malaysia's air conditioning and refrigeration industry, contributing to the advancement of greener practices.

The Roadshow highlighted several key points:

- Malaysia's Progress in Implementing the Montreal Protocol HPMP: Discussions on reducing ozone-depleting refrigerants and upcoming Kigali Implementation Plan.
- Natural Refrigerants: Information on low Global Warming Potential (GWP) refrigerants and their applications.
- Safety Standards (MS2678): Guidelines for handling environmentally friendly refrigerants.
- Climate Change and Green Buildings Concepts: Integration of air conditioning technologies with green building concepts for better energy efficiency.

Stakeholders are encouraged to facilitate the introduction of Ozone2Climate technologies, address the challenges related to their market adoption, and enhance the capacity of the servicing sector to equip them to service the latest technologies safely and effectively.

This collaborative environment supports worldwide efforts and accelerates the development of solutions for the protection of the ozone layer and mitigation of climate change guided by the Montreal Protocol on Substances that Deplete the Ozone Layer and the Kigali Amendment.



NATIONAL CONSULTATION WORKSHOP FOR KIGALI IMPLEMENTATION PLAN (6 MARCH 2024)

Malaysia ratified the Kigali Amendment to phase down the consumption of hydrofluorocarbons (HFCs) under the Montreal Protocol on 21 October 2020. The Department in cooperation with the World Bank team of experts was develop the overarching national strategies to phasedown HFCs under the Kigali Implementation Plan (KIP) with the action plan for the first stage of KIP implementation (2024-2029).

A National Consultation Workshop was organized on 6 March 2023 at Cyberview Resort & Spa, Cyberjaya. The objective of the workshop was to present the findings on the survey on HFC consumption in 2019 to 2022 and the action plan for KIP Stage I.

During the workshop, Montreal Protocol experts from the World Bank presented lower Global Warming Potential (GWP) alternatives for key sectors in Malaysia, as well as HFC phasedown strategies, policy and the possible HFC baseline and quota distribution.

The workshop was officiated by YBhg. Dato' Wan Abdul Latiff bin Wan Jaffar, Director General of the DOE. About 200 participants from government agencies, importers and industries players attended the workshop in person, while another 100 participants attended virtually.



ENGAGEMENT SESSION WITH HFC IMPORTERS FOR PREPARATION OF KIGALI IMPLEMENTATION PLAN (KIP) ON 23 JUNE 2023



Under the Kigali Amendment, Malaysia will be obligated to freeze the consumption of HFC at baseline starting from 2024. The quota allocation will help DOE to control the usage of HFCs and gradually decrease the usage till 2045. The Department of Environmental (DOE) conducted a Consultation Workshop with HFC Importers for Kigali Implementation Plan (KIP) Preparation on 23 June 2023 at Pulse Grande Hotel, Putrajaya. Around 50 participants including importers and manufacturing companies attended the workshop which was chaired by YBrs. Haji Shafe'ee Yasin, the Director of the Enforcement Division, DOE.

The objective of this Workshop was to gather feedback, consult with experts and explain the methodology of HFC import quota allocation.

DOE presented on the HFC import quota allocation and application procedure that will be implemented in 2024.

Dr. Viraj, Montreal Protocol expert from the World Bank then presented the proposed quota approach for Kigali Amendment Implementation to stakeholders. During the Workshop, participants were encouraged to provide feedback and information regarding HFC import quota allocation and application procedure. This input is essential to develop a comprehensive guideline on the HFC import quota system, which will be distributed to all HFC importers to ensure effective implementation.

SEMINAR ON SAFETY AND SUSTAINABILITY IN POLYURETHANE FOAM (PU FOAM)



The Department of Environment (DoE) organized the Seminar on Safety and Sustainability in Polyurethane Foam (PU Foam) at the Putrajaya Marriott Hotel on 8 September 2023. The event drew 126 participants from various sectors of the PU industry, including foam manufacturers, system houses, researchers, and suppliers. Dr. Norhazni Binti Mat Sari, the Deputy Director-General (Operations) of the DoE, officiated the event, joined by Hj Shafe'ee Bin Yasin, Director of the Enforcement Division of the DoE, and Nawaraj Chhetri, Acting Head of Natural Resources, Climate & Energy, UNDP Malaysia, Singapore, and Brunei Darussalam.

Throughout the seminar, a diverse panel of experts shared their insights and expertise on various aspects of safety and sustainability in PU foam production. Mr. Zhang Peng, a UNDP PU foam expert from China, offered valuable guidance on safely handling, storing, and transporting flammable blowing agents. Drawing from his experience and tailored recommendations to the Malaysian context, Mr. Zhang provided practical solutions to enhance safety measures within local enterprises.

Prof. Dr. Khairiah Binti Badri from the National University of Malaysia (UKM) delved into the challenges and opportunities surrounding sustainable PU production. She emphasized emerging trends such as the development of bio-based or recycled alternatives for PU feedstock, highlighting the industry's efforts to balance performance requirements with sustainability goals.

Furthering the discourse on sustainability, Ts. Dr. Kosheela Devi Poo Palam from the Malaysian Palm Oil Board (MPOB) explored promising solutions, including the potential of palm-oil-based alternatives. Her presentation shed light on the feasibility of reducing reliance on petroleum in PU foam production, thus contributing to a more sustainable industry.



Mr. Riccardo from Cannon Italy showcased advancements in fire-resistant PU materials and sustainable waste management practices. His presentation exemplified the industry's dedication to innovation and environmental stewardship throughout the product lifecycle.

The seminar concluded with an increased sense of commitment towards fostering safety and sustainability in the PU foam industry. Participants gained valuable insights on innovative solutions, paving the way for a greener, safer future for the industry.



NATIONAL WORLD OZONE DAY

The National Level World Ozone Day 2023 Celebration was inaugurated by the Honorable Dato' Mohamad Razif bin Haji Abd Mubin, Deputy Secretary-General (Energy, Environment, and Climate Change), Ministry of Natural Resources, Environment, and Climate Change. Attended by approximately 280 participants from various sectors including industry, government agencies, consultants, and educational institutions, the event served as a platform to highlight the importance of ozone layer protection and climate change.

The event, jointly organized by the Air Division and the FT Kuala Lumpur Department of Environment, was held at the M Resort Hotel.



Notably, a pivotal moment of the celebration was marked by the unveiling of "Healing The Ozone Layer - Our Story – Malaysia," a publication capturing Malaysia's impactful strides in implementing the Montreal Protocol since its ratification in 1989.

Moreover, the ceremony witnessed the commendation of 18 foam manufacturing entrepreneurs for their successful implementation of technology conversion projects under HPMP Phase II. Additionally, the presentation of the Europe & Central Asia Montreal Protocol Award for Customs and Enforcement Officers (5th edition) from the United Nations Development Programme (UNDP) underscored the dedication of enforcement officers in combatting the illegal trade of ozone-depleting substances.

Furthermore, an afternoon forum session featuring expert panels from the Energy Commission, Malaysian Meteorological Department, and Universiti Kebangsaan Malaysia aimed to raise awareness and share insights on ozone layer recovery, climate change mitigation, and efficient electricity management.

The event exemplified a collective commitment to environmental stewardship and served as a reminder of our responsibility to safeguard our planet for future generations.

TRAINING OF MASTER ASSESSOR ON COMPETENCY-BASED ASSESSMENT ON GOOD SERVICING PRACTICES IN REFRIGERATION AND AIR-CONDITIONING SERVICING SECTOR AT UNIVERSITI KUALA LUMPUR - MALAYSIA FRANCE INSTITUTE (UNIKL MFI) ON 28 - 30 NOVEMBER 2023



The Department of Environment (DoE) organised the Training of Master Assessor On Competency-Based Assessment On Good Servicing Practices In Refrigeration And Air-Conditioning Servicing Sector programme from 28th to 30th November 2023 at UniKL MFI, Bandar Baru Bangi, Selangor, Malaysia.

The programme was officiated by Tuan Haji Shafe'ee Yassin, Director of the Enforcement Division, DOE, together with Associate Professor Dr. Tengku Mohd Azahar Tuan Dir, Dean of UniKL MFI, and Mr. Pipat Poopeerasupong, Programme Management Officer of UNEP OzonAction Asia and the Pacific. The programme was facilitated by Mr. Michael Moller, a UNEP Instructor and Consultant in the field of refrigeration and air conditioning (RAC) maintenance.



The three day programme was attended by 23 participants comprising selected Master Assessors from Malaysia, Indonesia, Iran, Cambodia, Lao PDR, Mongolia, Vietnam, Pakistan, Bangladesh, and Sri Lanka. The programme aimed to strengthen the knowledge, skills, and techniques of Master Assessors in conducting competency assessments of service technicians in good servicing practices during RAC equipment maintenance.

The topics discussed included design, curriculum, assessment methodology, and industry requirements and involvement. Participants also shared their countries' assessment practices and the challenges faced in conducting competency assessments of service technicians.

TRAINING PROGRAM ON SAMPLING AND TESTING OF OZONE-DEPLETING SUBSTANCES (ODS)

In a significant stride towards safeguarding the ozone layer, the Department of Environment (DoE) has initiated a strategic collaboration with the Department of Chemistry, Malaysia. This collaboration is aimed at bolstering capabilities in controlling and monitoring ozone-depleting substances (ODS), including Chlorofluorocarbons (CFCs), Hydrochlorofluorocarbons (HCFCs), Carbon Tetrachloride (CTC), and Halons, particularly those that are banned. By leveraging the Department of Chemistry's expertise in chemical analysis, this initiative ensures a comprehensive approach to ODS management.

To enhance the knowledge and exposure of DoE officers and Department of Chemistry chemists in ODS sampling and analysis, the DoE conducted an Ozone Depleting Substances (ODS) Sampling and Testing Training Program on the 2nd November 2023.



This program, part of the Stage II HCFC Management Plan (HPMP II) initiative, was held in collaboration with Texcarrier Industries Sdn. Bhd., a refrigerant reclamation company with AHRI-certified laboratory testing facilities.

During the program, Texcarrier laboratory staff representatives shared their experiences, both theoretical and practical. They demonstrated ODS sampling methods for liquid and gas samples and their analysis using gas chromatography (GC) techniques to identify the presence of ODS. This hands-on training will be crucial for supporting DoE's enforcement activities, especially in refrigerant management.

TRAINING



**Workshop on the Ozone Depleting Substance Control
(13 - 16 June 2023)**



**Workshop on the Ozone Depleting Substance Control
(17 - 20 October 2023)**

INTERNATIONAL MEETINGS / WORKSHOPS

1



22-24/2/2023

15th Annual East Asia and Pacific (EAP) Regional Workshop on Montreal Protocol Implementation in East Asia (Danang, Vietnam)

2

13-17/3/2023

Network Meeting of the Southeast Asia National Ozone Officer Series (Halong, Vietnam)



3

2-7/7/2023

45th Meeting of The Open-Ended Working Group (OEWG45) (Bangkok, Thailand)



4

27-28/9/2023

Group Seminar for Asian Countries on Fluorocarbons Life Cycle Management (Bangkok, Thailand)



INTERNATIONAL MEETINGS / WORKSHOPS

5



10-12/10/2023

South-South Cooperation on Establishment and Implementation of Competency-based Certification of Refrigeration and Air-conditioning Technicians for the Southeast Asia Network (Jakarta, Indonesia)

6

23-27/10/2023

35th Meeting of the Parties (MOP35) To the Montreal Protocol on Substances That Deplete the Ozone Layer (Nairobi, Kenya)



7



20-24/11/2023

Advanced National Ozone Officers Training Workshop and Joint Network Meeting of South Asia and Southeast Asia of National Ozone Officers (NOOs) (Phuket, Thailand)

8

23-27/10/2023

Thematic Workshop to Enhance Awareness and Communication under Montreal Protocol (Phuket, Thailand)

