



**ASHRAE
&
United Nations Environment Programme**

**2026-2027 Biennial Work Plan of the
ASHRAE-UNEP Global Cooperation Agreement
“Life Cycle Refrigerant Management”**

1. ASHRAE and UNEP, through its OzonAction Programme, have cooperation agreements aiming to achieve several global environmental and technical goals within the mandate of both organizations, including but not limited to the goals of reducing refrigerants emissions, maximizing climate benefits in selecting alternative refrigerants, building the capacities of different HVAC&R stakeholders, and facilitating the transfer and adoption of suitable technologies in developing countries.
2. The agreements call for establishing Work Plans to address the specific technical priorities and emerging issues. This is the seventh in a series of joint Work Plans, developed under the ASHRAE-UNEP Cooperation Agreement and managed through a joint Liaison Working Group established by both sides to implement cooperative activities.
3. The **2026-2027 Work Plan** is designed under the theme of “**Lifecycle Refrigerant Management (LRM)**.” The plan’s emphasis is on deploying tools and programs developed through the partnership that support handling of refrigerants from cradle to grave for ozone protection, community safety, and energy efficiency including the manufacturing and importation of refrigerants, their selection and use in equipment, servicing, leak prevention, and end of life refrigerant management with emphasis on developing countries.

4. Implementing this Work Plan assists government and the refrigerating and air-conditioning industry by developing:
 - Up-to-date information about new alternative technologies entering the marketplace
 - Learning tools, reference works, and events that enable technology transfer about new technology applications and safety issues
 - Capacity building to achieve enhanced environmental performance
 - Expanded awareness of career opportunities that will attract a diverse workforce
5. ASHRAE and UNEP will work collaboratively to implement their respective mission statements to assist developing countries in complying with the Montreal Protocol. Both ASHRAE and UNEP recognize the value of sharing resources to implement environmentally beneficial technology choices and strengthen infrastructure capacity to support technology adoption and application.
6. This Work Plan will be implemented through different types of activities that allow extended engagement amongst relevant stakeholders in developing countries.
7. The official channels of communication between ASHRAE and UNEP shall be maintained through the ASHRAE-UNEP Joint Liaison Working Group. The Working Group will be responsible for monitoring completion of the Work Plan, coordinating activities, collecting feedback, and providing updates as needed to regional teams and other respective organization entities in relation to all types of activities within this Work Plan. The Working Group may approve additional activities apart from the Work Plan that align with the theme of the 2026-2027 Work Plan.
8. ASHRAE and UNEP are responsible for appointment of their respective representatives to the ASHRAE-UNEP Joint Liaison Working Group. When physical meetings are held by the Working Group, they shall be chaired by the organization hosting the physical meeting. Virtual meetings will be co-chaired by the organizations.
9. Work Plan activities will have identified outcomes and assigned responsibilities, tracked in a Work Plan Implementation Table updated monthly. The activities included in the 2026-2027 Work Plan are as follows, sequenced by priority, in support of advancing Lifecycle Refrigerant Management:
 - A. **RAC Technicians Field Companion** -- Develop an AI-powered application based on the "Assessing RAC Plant Sustainability" Technical Guide that is a multi-language, mobile application AI chatbot. The field companion will empower technicians with real-time, context-aware guidance and will automate documentation that will translate the guide's guidance into tangible actions that will promote safe, life-cycle refrigerant management.

B. Fact Sheets for Lifecycle Refrigerant Management and Energy Efficient RAC –

Develop a series of fact sheets or briefing documents on topics such as:

- Benefits of lifecycle refrigerant management.
- An energy audit and how to complete one.
- Safe use and handling of flammable refrigerants.
- Understanding regulatory requirements related to the use of flammable refrigerants.

In addressing this activity, consideration should be given to using existing information from other organizations concerned with refrigerant management and to referencing or developing tools and other online educational materials as companions to the fact sheets or briefing documents.

C. Promotion and Continual Evaluation of ASHRAE UNEP OzonAction Joint Products –

Adequately capture registration and use of joint products to identify number and type of users, determine product satisfaction, analyze product impact, and collect user suggestions for improvement, enhancement or companion products. These joint products include:

- Energy Efficiency Literacy
- Refrigerants Literacy
- University Course
- Assessing RAC Plant Sustainability
- Refrigerant Update Factsheet

The objective is to collect data which leads to greater user satisfaction, increased use, and improved refrigerant management.

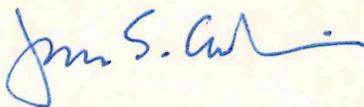
This activity also includes determining if Sound Management of Refrigerants eLearning should be updated with an emphasis on life-cycle refrigerant management, and if so, establish a plan for updating that includes resource allocation and identification of subject matter experts for authoring the update.

D. Lower GWP Award – Solicit entries and judge submissions for the next cycle of the award (2027). This includes announcing new submission criteria which focus on demonstrated energy efficiency that exceeds metrics common for developing countries and which operate in accordance with safety protocols that meet international standards. Also, case studies of the selected entries will be prepared and published in the ASHRAE UNEP Portal to encourage adoption in developing countries.

E. ASHRAE UNEP Connect – Establish a process to create ongoing focal points of communication between ASHRAE chapters and National Ozone Units to encourage participation in regional network meetings and thematic workshops. The process could utilize ASHRAE as an ally for development of public policy which supports energy efficient and ozone safe refrigeration and air conditioning.

- F. **ASHRAE Participation with Technical Groups and Meetings of the Parties to the Montreal Protocol** – Encourage participation of ASHRAE members on expert panels and committees reporting to the Ozone Secretariat under the framework of the Montreal Protocol and Vienna Convention, including participation on the Refrigeration, Air-Conditioning, and Heat Pumps Technical Options Committee (RTOC), Technology and Economic Assessment Panel (TEAP), ASHRAE attendance at UNEP’s Energy Efficiency Workshop, and organization of ASHRAE side events at Conferences and Meetings of the Parties. ASHRAE to consider forming an informal information sharing group of members of TEAP and RTOC that are ASHRAE members to keep ASHRAE informed of key decisions and discussions of the Parties to the Montreal Protocol.
- G. **ASHRAE-UNEP Portal** – Maintain and update the ASHRAE UNEP portal at www.ashrae.org/ashrae-unesp-portal as the focal point for updated jointly developed products and tools and as a resource of current information about joint activities.
- H. **World Refrigeration Day (WRD)** – Jointly use WRD, June 26, as a platform to raise the profile of the refrigeration, air-conditioning and heat-pump sector and focus public attention on the activities of ASHRAE and UNEP.
10. This Work Plan can be modified or amended by written agreement between both parties and as needed during the implementation period of January 2026 through December 2027 notwithstanding any internal clearance or review process of each partner.

For UNEP



James S. Curlin
Head of UNEP OzonAction

For ASHRAE



William F. McQuade, P.E.
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