



ASHRAE  
&  
United Nations Environment Programme



## **2017-2018 Work Plan of ASHRAE-UNEP Cooperation Agreement**

ASHRAE and UNEP signed a cooperation agreement in 2007 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 facilitate the transfer and adoption of suitable technologies in developing countries. The agreement calls for establishing a biennial work plan to address the specific technical priorities and emerging issues. This work plan is the fourth biennial joint work plan, under ASHRAE-UNEP Cooperation Agreement, and is developed through the joint Liaison Committee established by ASHRAE and UNEP to manage the implementation of the cooperation between both parties.

**The 2017-2018 Work Plan** is thematically designed under the theme of “**Working beyond High-GWP Refrigerants**” which is one of the most technological and environmental emerging issues in particular after the Kigali Amendment to the Montreal Protocol. The new work plan is designed to address two main goals in relation to the theme which are:

- 1. Advocacy and Knowledge Sharing**
- 2. Training, Education and Practice**

Under each goal there are number of programs, initiatives and activities that will be jointly implemented during the timeframe of the work plan i.e. 2017-2018. The following describes the specific programs, action items and activities associated with each goal.

## Goal 1: Advocacy and Knowledge Sharing

### Goal 1/Action 1: Global Conferences and Events

UNEP & ASHRAE will work together organizing joint global events for advocating, mainly amongst stakeholders in developing countries, latest technological development in relation to moving away from high-GWP alternatives in different refrigeration and air-conditioning sectors.

#### Activity #1:

##### International Conference on Sustainable Refrigeration Technologies for Marine and Off-Shore Fisheries Sectors

- Date/Venue: Bangkok, Thailand 6-8 April 2017
- Action items: Technical and Organizing committees established and managing the event

#### Activity #2:

##### Side events at 2017 MOP/OEWGs & ASHRAE events

- Date/Venue: OEWG-39 in Bangkok 11-14 July 2017 & MOP-29 in Montreal Nov 2017
- Action items: Liaison Committee to suggest themes and speakers as well as structure of the side events

#### Activity #3:

##### International Conference on Feasible Low-GWP Alternatives for Developing Economies *[Tentative title]*

- Date/Venue: Spring 2018 Dubai, UAE *[To be confirmed]*
- Action items: Establish Technical Team to manage the event

### Goal 1/Action 2: Refrigerants Awareness Package

UNEP & ASHRAE will develop an Awareness Package for advocating knowledge and development associated with the alternative refrigerants and their policies and standardization.

#### Activity #1:

##### Design a Series of seminars for the use by ASHRAE chapters and UNEP regional networks about refrigerants designation, classifications, safety, selection, policies and responsible use.

- Action items: Liaison Committee to develop the package content, suggested list of speakers and outline of the technical materials to be offered at the seminars

**Activity #2:**

**Design a Series of dedicated Webinars about latest update of refrigerants designation and flammability standards.**

- Action items: Liaison Committee to suggest a program for the Webinars including topic of each session, suggested speakers as well as dates/timing

**Activity #3:**

**Develop and update joint Factsheets and Technical Briefs for policy makers and technical stakeholders**

- Action items: Update regularly the “Refrigerants Classification and Designation” factsheet, develop new technical factsheets as well as develop briefing papers for policy-makers about technological and standards update. The Liaison Committee to discuss and conclude on the topics of the factsheets and briefing papers.

**Goal 1/Action 3: Low-GWP Innovation Award Program**

UNEP & ASHRAE to cooperate in establishing an international Award Program for promoting the innovation designs, research and practices of low-GWP alternatives and technologies.

**Activity #1:**

**Establish Joint Committee to manage the Award Program**

- Action items: The Liaison Committee to establish the Joint Award Committee with tasks of:
  1. Low-GWP Innovative Design Award
  2. Students Research Award
  3. Field Practice Award
- B. Suggest the Awards and number of awarded individuals for each category
- C. Manage the applications and act as Jury for the Award Program

**Activity #2:**

**Outreach campaign for ASHRAE-UNEP Low-GWP Innovation Award Program**

- Action items:
  - A. Develop campaign to promote for the Joint Award Program including leaflets, web-Ads, Webinars and brief sessions at major events.
  - B. Organize high-level Awarding Ceremonial Sessions at margins of Montreal Protocol Meeting of Parties.



### **Goal 1/Action 4: Issues Related to Buildings Sector**

UNEP & ASHRAE to cooperate in exploring joint activities and programs related to the Buildings Sector in conjunction with the theme of the work plan and with focus on the following areas:

- A. Energy Efficiency in Buildings
  - B. Indoor Environmental Quality (IEQ)
  - C. Buildings Codes and Standards
- Action items:
- A. The Liaison Committee will suggest products and activities that address the above three areas benefitting of ASHRAE and UNEP existing relevant programs
  - B. Present the proposal to the ASHRAE-UNEP Annual Coordination Meeting (April-2017) for concluding on the specific action items and fiscal impacts

### **Goal 2: Training, Education and Practice**

#### **Goal 2/Action 1: Online Training Program on Refrigerants**

ASHRAE and UNEP to cooperate in developing and outreaching an [Online Training Courses on Refrigerants](#) and make it accessible to different stakeholders around the globe

##### **Activity #1:**

##### **Development of two (2) online courses:**

- **Course-A (Refrigerant Literacy):** For basic understanding of policy makers, facility managers and non-specialists on refrigerants main characteristics, uses and basic sound management needs.
  - **Course-B (Sound Management of Refrigerants):** For detailed training for RSS specialists on the sound and safe practices of handling and managing refrigerants during installation, servicing and disposing of refrigeration and air-conditioning applications.
- Action items:
- UNEP and ASHRAE to engage in contracting arrangements for the development of the two (2) courses including establishing joint working team, consultancy contracts for the development of the courses, review of the courses content during the development and finalize the online platform and make ready for the launch
  - UNEP and ASHRAE to Launch the courses at margins of ASHRAE and UNEP international events

**Activity #2:**

**Management and outreach the online courses**

- Action items: UNEP and ASHRAE to design an outreach campaign to promote the use of the courses by different stakeholders around the globe and in particular in developing countries. This will include the management of the online platform during 2017-2018 as well as compiling feedback on the courses.

**Goal 2/Action 2: Contemporary Learning for Universities**

ASHRAE and UNEP to cooperate in promoting the research and education activities related to Low-GWP alternatives and technologies at universities and institutes

**Activity #1:**

**Promote the research activities related to low-GWP alternatives and technologies through ASHRAE chapters and sections at Universities and Institutes**

- Action items:
  - Liaison Committee to develop a Generic Seminar on research opportunities and priorities related to low-GWP alternatives and technologies to be used by ASHRAE branches and sections at Universities and Institutes.
  - Liaison Committee to organize remote orientation sessions on the use of the Generic Seminar

**Activity #2:**

**Promote the introduction and use of UNEP Engineering Under-graduates Course on Refrigerants Management through ASHRAE Students branches**

- Action items:
  - Liaison Committee to develop a Quick Guide for the use of UNEP Course by engineering colleges and universities.
  - Liaison Committee to organize orientation sessions, remotely and in margins of relevant ASHRAE or UNEP functions, on the use of the Quick Guide
  - UNEP to follow-up on the introduction of the course and link interested universities with the respective National Ozone units (NOUs)

### **Goal 2/Action 3: RAC Plants Assessment Program**

ASHRAE and UNEP to cooperate in developing an Assessment Program on the Responsible Use of Refrigerants by RAC Plants

#### **Activity #1:**

##### **Development of the Responsible Use of Refrigerant Assessment program which should include:**

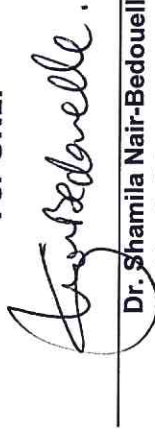
- A. Refrigerant Containment Practices
  - B. Energy Saving Practices
  - C. Management and Operation Practices (logging, record keeping, etc.)
- Action items:
- Establish working team of experts for the development of the assessment program including the Assessment requirements, checklists and resources to be used by practitioners
  - Review and finalize the assessment program including testing and piloting the program

#### **Activity #2:**

##### **Manage and outreach the use of the Certification Program**

- Action items:
- Suggest an operational model for managing the Assessment Program
  - Liaison Committee to develop short support tools about the Assessment Program including leaflets, Web-Ads and through means of mass-communication
  - Liaison Committee to organize orientation Webinars and Seminars, in margins of relevant ASHRAE or UNEP functions, on the use of the Assessment Program

**For UNEP**



Dr. Shamila Nair-Bedouelle  
Head of OzonAction

**For ASHRAE**



Mr. Timothy G. Wentz  
ASHRAE President