



UNITED NATIONS ENVIRONMENT PROGRAMME

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Программа Организации Объединенных Наций по окружающей среде برنامج الأمم المتحدة للبيئة

联合国环境规划署



UN Environment and partners train and certify Saudi Arabian technicians in Good Practices in Refrigeration and Air- Conditioning



Dammam, 26 October 2016 – As part of its support to countries in West Asia in meeting their commitments under the Montreal Protocol on Substances that Deplete the Ozone Layer, the UN Environment OzonAction Compliance Assistance Programme (CAP), in partnership with the United Nations Industrial Development Organization (UNIDO), the Saudi National Ozone Unit and Dammam College of Technology, conducted two technician training and certification workshops on Good Practices in Refrigeration and Air-Conditioning (RAC) Servicing from 16 - 26 October 2016 in the Kingdom of Saudi Arabia.

The 16-19 and 23-26 October workshops were organized at the Dammam College of Technology with a total of 49 participants, including technicians from a leading air-conditioning company in the region as well as other personnel involved in air-conditioning services. Experts from the Italian training centre, Centro Galileo, and Dammam College provided theoretical and valuable hands-on training to the technicians who were also briefed by representatives of UN Environment, UNIDO and the Saudi National Ozone Unit.

Ending with the distribution of UN Environment certificates of training to the participants, the workshops were the latest of several RAC training events organized by OzonAction in the Kingdom of Saudi Arabia since 2012 to support the phase out of ozone-depleting hydrochlorofluorocarbons (HCFCs) under the Montreal Protocol.

Most West Asian countries are implementing their HCFC Phase out Management Plans (HPMPs) approved by the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol, aiming to achieve at least the 2013 and 2015 control measures under the universally ratified treaty. The RAC servicing sector accounts for a significant share of HCFC-22 consumption in the region and the quality of servicing is crucial in reducing HCFC consumption.

To strengthen awareness and skills of the technicians in order to prevent refrigerant emissions during servicing, the UN Environment training workshops have also included RAC trainers from all over Saudi Arabia who have, in addition, been trained in the assessment of technician performance.

Besides technical knowledge, participants in the October 2016 workshops were tested on their awareness of the Montreal Protocol, different types of ozone depleting substances (ODS) and ODS alternatives. They were briefed on the environmental and human health impact of ozone-depleting refrigerants as well as on the advantages and disadvantages of HCFC alternatives such as hydrofluorocarbons (HFCs) and HFC blends, and natural refrigerants like hydrocarbons, ammonia and carbon dioxide.

A presentation on the 'Do's' and 'Don't's' in refrigeration service, focused on how technicians can avoid wrong practices, for example during the recovery of refrigerants by using proper tools and equipment among others.

A post-test evaluated the participants' knowledge of good practices gained from the training and their feedback on the training was also obtained.

A significant development of the UN Environment certification scheme for RAC technicians required in big consuming countries like Saudi Arabia, has led to the introduction of the certification system for F-Gas regulation (EU reg. 303/2008/CE) in order to demonstrate that certification of RAC technicians is doable. The introduction of the F-gas regulation system will also facilitate future work on phasing down the global warming HFCs that have been replacing ozone-depleting HCFCs in the RAC sector, as required under the October 2016 Kigali Amendment to the Montreal Protocol. Several technicians have been certified in 2014 and 2015 under the pilot phase with the support of AREA/Centro Studi Galileo Training Center in Italy. However, the Kingdom of Saudi Arabia is preparing its own certification scheme tailored to local conditions.

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Mr. Ahmad Al Thunyan, Dean of Dammam College of Technology welcomes participants and Mr. Khaled Klaly of UN Environment Regional Office for West Asia makes opening remarks



Mr. Stefano Sarti, consultant and resource person of Centro Studi Galleo speaks to the participants

Mr. Al-Sahafy, the Ozone Officer addresses participants



Participants being briefed before pre-test examination



Mr. Jasim of Dammam College of Technology and other trained trainers prepare equipment for the practical examination as Mr. Khaled Klaly looks on

Participants familiarise themselves with the recovery machine and practical examination procedures



Mr. Hamed, a previously trained trainer, observes participants practicing tube processing



Participants familiarising themselves with the operation of the refrigeration unit for the parameter recording



Mr. Stefano Sarti checks a participant's form before the theoretical examination



Participants at the theoretical examination required to be taken before the practical examination

Mr. Stefano Sarti observes a participant performing refrigerant recovery during the practical examination



Mr. Manuel Azucena assesses the performance of a participant during the practical examination



Mr. Hamed checks the brazing work of a participant during the practical examination



Mr. Hamed checks the brazing work of a participant during practical examination



Mr. Khaled Klaly delivering closing remarks at the first training workshop and thanking participants for their active attendance



A very happy participant upon receiving his certificate of training



Mr. Khaled Klaly delivering closing remarks at the second training workshop