

## DENMARK

### **Danish Refrigeration Installer Environmental Scheme – Montreal Protocol**

Since 1992 the Danish Refrigeration Installers' Environmental Scheme (KMO scheme) has offered the authorities free help in connection with collection and disposal of refrigerant waste that the normal waste system is unable to deal with satisfactorily. Actors in the Danish refrigeration sector established the KMO scheme on their own initiative following the Danish Government's ratification of the Montreal Protocol in 1992. This Protocol bans emissions of a number of CFC gases in order to protect the atmosphere's ozone layers.

Since 1992 the sector has spent about DKK 9 million on the scheme, which today can be considered as a reasonably successful and natural part of environmental protection measures in Denmark. However, recent years have witnessed that local authorities are not always able to carry out their part of the tasks for correct treatment of the CFC-based refrigerants.

According to the Environmental Protection Act, local authorities must ensure that the cleanest technology is used. If leaking refrigeration units are repeatedly refilled with CFC, HCFC or HFC we risk causing depletion of the ozone layer or global warming. Likewise, the Statutory Order on Waste states that transporters of waste must report to the local authorities about what hazardous waste they transport and where and when they do it.

The implementation of the scheme must be considered a success, and it has become a natural part of environmental protection measures in Denmark today.

It turns out that the scheme is the first of its kind, and therefore it has given cause for many discussions of the different methods we can use for collecting and disposing of waste that requires special product knowledge. Many enquiries have been made and ideas put forward on a continuous basis as to how we should solve the challenge of collection and disposal, and when we look back at these we can see that the task can not be solved satisfactorily by the normal public-sector waste system. The normal waste system is not geared for managing this type of problematic waste. Therefore the KMO scheme is important for the final decision about who is to deal with the problematic waste and the conditions they should be subject to. In addition, this waste problem is complex in that refrigerants primarily pollute due to uncontrolled leaks from refrigeration units that are in use. Less pollution occurs under emptying and transport from the "waste producer" to the controlled storage site. For the same reason, the organisers of the KMO scheme decided that it would be interesting to not only know about how much refrigerant is removed from refrigeration units, but also to know how much and which refrigerant the refrigeration units are filled with. Only few enterprises have declined to join the scheme, and generally we can say that the scheme is accepted by most enterprises, though not loved. Many local authorities are happy that the refrigeration trade is able to regulate itself, especially since the local authorities often do not have the financial resources to carry out the control that the environmental legislation requires. The Technical College of Jutland in Hadsten has noticed a change of attitude amongst the trainees and professionals on its courses, whereby thinking about the environment has now become a natural part of their daily life.

In recent years, the automotive sector has become a significant partner in the KMO scheme. This is not least because of a couple of tool suppliers who also sell filling and removal equipment and therefore refer their customers to the KMO scheme.

Because air-conditioning in cars has become so common, the automotive sector's primary training centres such as Års, Viborg, Ålborg, Århus, Frederikshavn, Næstved, Nykøbing Falster and Lyngby Technical College have now included a module on refrigeration in their course programmes. The colleges have expressed a wish to be recognised by the KMO scheme as course providers for courses aimed at gaining KMO approval.

The Danish Ministry of the Environment/Danish EPA have expressed their satisfaction with the KMO scheme and the knowledge it provides on many occasions. The Danish EPA considers the KMO scheme an integrated part of Danish environmental work.