



## **Energy Labelling in the Cold Chain Working Party of Commissions D1 and D2**

### **TERMS OF REFERENCE**

#### **INTRODUCTION**

In accordance with Article XIX of the International Agreement concerning the IIR and Articles 15 to 18 of the Internal Regulations of the Scientific Council of the IIR, the setting up of a Commissions D1 and D2 Working Party (WP) is proposed. The following Terms of Reference (ToR) further define the role of the WP.

#### **BACKGROUND**

Energy efficiency is becoming a major concern due to the scarcity of primary sources. The need for the reduction of the environmental impact of energy using processes is also unanimously recognized.

Both food storage and transport at controlled temperature are energy demanding links in the cold chain. Keeping food at controlled temperature requires a great amount of energy, thus it is likely that every action promoting energy savings will be welcome. This belief is strengthened by the fact that energy costs have remarkably increased in the last years and this trend is being confirmed.

Unfortunately the need for guaranteeing food quality and safety, and the opportunity for energy savings lead to contrasting practices. It is therefore essential to carry out a thorough investigation in order to identify possible actions towards the promotion of energy savings in the cold chain.

Legislation in some Countries already states mandatory Minimum Efficiency Performance Standards (MEPS) for some appliances (e.g. for display cabinets in the USA, Canada, Australia ...). Previous experience in other fields (e.g. domestic appliances or residential buildings) showed that the existence of an energy labelling scheme strongly pushes the market towards more energy efficient products. In the European Union, both in the field of commercial refrigeration and of refrigerated land transport some proposals have already been made for energy labelling schemes, which need harmonization and further discussion. Until this date, sea and air transport and refrigerated storage have not yet been interested in the European Union. For all these reasons a working group is proposed on the topic, to investigate the feasibility of effective energy labelling schemes for food storage, display and land/sea/air transport.

#### **OBJECTIVES**

The main objective of the working party is to investigate effective energy labelling schemes for refrigerated storage, display and transport in the cold chain, and promote their diffusion.

#### **ACTIVITIES**

- Collecting information about all the energy labelling schemes and MEPS (Minimum Efficiency Performance Standards) which have been already proposed or investigated
- Comparing such labelling schemes and standards within each field (storage, display, land transport, sea/air transport) and promoting their integration
- Investigating the feasibility of new energy labelling schemes and MEPS
- Establishing and continuously updating a reference list of research publications on the topic
- Organizing meetings (mainly workshops) for all members
- Promoting energy labelling schemes in the cold chain through publications in scientific and non-scientific journals and newspapers, and presenting papers at conferences.

## **DELIVERABLES**

- Review articles in the International Journal of Refrigeration on energy requirements and energy labelling in the cold chain.
- Articles in the International Journal of Refrigeration and other scientific journals on specific aspects related to the application to the cold chain of energy labelling schemes and MEPS.
- Papers at International Conferences on specific aspects related to the application of energy labelling schemes and MEPS to the cold chain.
- Web site with updated relevant information about WP progress.

## **IIR COMMISSIONS INVOLVED**

The working party will involve commissions D1 (refrigerated storage) and D2 (refrigerated transport).

## **MEMBERSHIP**

Members are expected to be either private members or representatives of corporate members of the IIR and are expected to cover all costs associated with their membership of this working party. Members must be active in the working group.

## **STRUCTURE**

The working party shall include 2 subgroups:

- Subgroup A: Refrigerated storage (industrial, commercial and domestic refrigeration);
- Subgroup B: Refrigerated transport (land, air, sea).

The two subgroups will act with synergy, sharing expertise, information and initiatives.

## **CHAIRMAN AND BUREAU**

President: Giovanni Cortella, University of Udine, Italy,

Vice-President: to be defined

Vice-President: to be defined

Secretary: to be defined

Secretary: to be defined

The Working Party will designate its officers at its first meeting.

## **MEETINGS**

Due to the world-wide expected participation to the working party, electronic communication between members will be a priority.

The President and the Vice-Presidents of the Working Party will organize meetings, preferably at least once a year. Separate meetings for the two subgroups and meetings on a regional basis will be planned in addition to the plenary ones, in order to facilitate participation.

Minutes of the meetings shall be prepared by the Secretary and a copy shall be sent to the IIR head office, to the President of the Science and Technology Council and to the Presidents of Commissions D1 and D2.

## **WEB SITE**

A web site will be set up in order to disseminate relevant information on cold chain optimization and to promote the activities of the working party and of the IIR. It will be periodically updated under the responsibility of the President and of the Vice-Presidents. It will be linked to Commissions D1 & D2 Web sites and to the IIR Web site.