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From: Secretary-General of the European Commission,  
signed by Mr Jordi AYET PUIGARNAU, Director

date of receipt: 5 May 2015

To: Mr Uwe CORSEPIUS, Secretary-General of the Council of the  
European Union

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Subject: ANNEXES to the COMMISSION DELEGATED REGULATION (EU) No  
.../.. of 5.5.2015 supplementing Directive 2010/30/EU of the European  
Parliament and of the Council with regards to the energy labelling of  
professional refrigerated storage cabinets

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Delegations will find attached document C(2015) 2874 final ANNEXES 5-10.

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Encl.: C(2015) 2874 final ANNEXES 5-10



Brussels, 5.5.2015  
C(2015) 2874 final

ANNEXES 5 to 10

**ANNEXES**

**to the**

**COMMISSION DELEGATED REGULATION (EU)**

**supplementing Directive 2010/30/EU of the European Parliament and of the Council  
with regard to the energy labelling of professional refrigerated storage cabinets**

**ANNEX V**  
**Technical documentation**

1. The technical documentation referred to in Article 3(1)(c) shall include:
  - (a) the name and address of the supplier;
  - (b) sufficient description of the professional refrigerated storage cabinet model for it to be unambiguously identified;
  - (c) where appropriate, the references of the harmonised standards applied;
  - (d) where appropriate, the other technical standards and specifications used;
  - (e) the identification and signature of the person empowered to bind the supplier;
  - (f) the results of the measurements and calculations for the technical parameters specified in Annex IX.
2. Where the information included in the technical documentation file for a professional refrigerated storage cabinet model has been obtained by a calculation based on an equivalent professional refrigerated storage cabinet model, the technical documentation shall include details of such calculations and of tests undertaken by suppliers to verify the accuracy of the calculations undertaken. The technical information shall also include a list of all other equivalent professional refrigerated storage cabinet models where the information was obtained on the same basis.
3. The information contained in this technical documentation may be merged with the technical documentation provided in accordance with measures under Directive 2009/125/EC.


## **ANNEX VI**

### **Information to be provided where end-users cannot be expected to see the product displayed, except on the internet**

1. Where end-users cannot be expected to see the product displayed, except on the internet, the information shall be provided in the following order:
  - (a) the energy efficiency class of the model, in accordance with Annex II;
  - (b) the annual energy consumption in kWh per year, rounded to the nearest integer and calculated in accordance with Annex IX;
  - (c) the net volume of each compartment;
  - (d) the climate class in accordance with Annex IX.
2. Where other information contained in the product fiche is provided, it shall be in the form and order specified in Annex IV.
3. The size and font in which the information referred in this Annex is printed or shown shall be such that it is legible.

## ANNEX VII

### Information to be provided in the case of sale, hire or hire-purchase through the internet

1. For the purpose of points 2 to 5 of this Annex the following definitions shall apply:
  - (a) ‘display mechanism’ means any screen, including tactile screen, or other visual technology used for displaying internet content to users;
  - (b) ‘nested display’ means visual interface where an image or data set is accessed by a mouse click, mouse roll-over or tactile screen expansion of another image or data set;
  - (c) ‘tactile screen’ means a screen responding to touch, such as that of a tablet computer, slate computer or a smartphone;
  - (d) ‘alternative text’ means text provided as an alternative to a graphic allowing information to be presented in non-graphical form where display devices cannot render the graphic or as an aid to accessibility such as input to voice synthesis applications.
2. The appropriate label made available by suppliers in accordance with Article 3(1)(b) shall be shown on the display mechanism near the price of the product in accordance with the timelines indicated in Article 3(2). The size of the label shall be such that it is clearly visible and legible and shall be proportionate to the size specified in point 3 of Annex III. The label may be displayed using a nested display, in which case the image used for accessing it shall comply with the specifications in point 3 of this Annex. If nested display is applied, the label shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image.
3. The image used for accessing the label in the case of nested display shall:
  - (a) be an arrow in the colour corresponding to the energy efficiency class of the product on the label;
  - (b) indicate the energy efficiency class of the product in white in the same font size as that used for the price; and
  - (c) be in one of the following two formats:  

4. In the case of nested display, the sequence of display of the label shall be as follows:
  - (a) the image referred to in point 3 of this Annex is shown on the display mechanism in proximity to the price of the product;
  - (b) the image links to the label;
  - (c) the label is displayed after a mouse click, mouse roll-over or tactile screen expansion on the image;
  - (d) the label is displayed by pop up, new tab, new page or inset screen display;

- (e) for magnification of the label on tactile screens, the device conventions for tactile magnification apply;
  - (f) display of the label is closed by means of a close option or other standard closing mechanism;
  - (g) the alternative text for the graphic, to be displayed on failure to display the label, is the energy efficiency class of the product in the same font size as that used for the price.
5. The appropriate product fiche made available by suppliers in accordance with Article 3(1)(d) shall be shown on the display mechanism near the price of the product. The size shall be such that the product fiche is clearly visible and legible. The product fiche may be displayed using a nested display, in which case the link used for accessing it shall clearly and legibly indicate 'Product fiche'. If nested display is used, the fiche shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.

**ANNEX VIII**  
**Method for calculating the energy efficiency index for professional refrigerated storage cabinets**

For the calculation of the energy efficiency index (EEI) of a professional refrigerated storage cabinet model, the annual energy consumption of the cabinet shall be compared to its standard annual energy consumption.

The EEI shall be calculated as:

$$EEI = (AEC/SAEC) \times 100$$

Where:

$$AEC = E_{24h} \times af \times 365$$

AEC = annual energy consumption of the cabinet in kWh/year

E<sub>24h</sub> = energy consumption of the cabinet over 24 hours

*af* = *adjustment factor* to be applied only for light-duty cabinets, according to Annex IX, point 2

$$SAEC = M \times V_n + N$$

SAEC = standard annual energy consumption of the cabinet in kWh/year

V<sub>n</sub> = net volume of the appliance, which is the sum of net volumes of all compartments of the cabinet, expressed in litres.

M and N are given in the Table 2.

<b>Table 2 – M and N coefficient values</b>		
Category	Value for M	Value for N
Vertical Chilled	1.643	609
Vertical Frozen	4.928	1472
Counter Chilled	2.555	1790
Counter Frozen	5.840	2380

## ANNEX IX

### Measurement and calculation

1. For the purposes of compliance and verification of compliance with the requirements of this Regulation, measurements and calculations shall be made using harmonised standards the reference numbers of which have been published for that purpose in the Official Journal of the European Union, or using other reliable, accurate and reproducible methods that take into account the generally recognised state-of-the-art methods. They shall meet the technical definitions, conditions, equations and parameters set out in this Annex.
  
2. For establishing the values of annual energy consumption and energy efficiency index for professional refrigerated storage cabinets, measurements shall be carried out under the following conditions:
  - The temperature of test packages shall be between  $-1\text{ }^{\circ}\text{C}$  and  $5\text{ }^{\circ}\text{C}$  for chilled cabinets and lower than  $-15\text{ }^{\circ}\text{C}$  for frozen cabinets.
  
  - The ambient conditions shall correspond to climate class 4 as detailed in Table 3, except for light-duty cabinets, which shall be tested in ambient conditions corresponding to climate class 3. Adjustment factors of 1.2 for light-duty cabinets at chilled operating temperature and 1.1 for light-duty cabinets at frozen operating temperature shall then be applied to the testing results obtained for light-duty cabinets.
  
  - Professional refrigerated storage cabinets shall be tested:
    - - at chilled operating temperature in the case of a combined cabinet containing at least one compartment exclusively intended for chilled operating temperature;
  
    - - at chilled operating temperature in the case of a professional refrigerated storage cabinet which has solely one compartment exclusively intended for chilled operating temperature;
  
    - - at frozen operating temperature in all other cases.
  
3. The ambient conditions of climate classes 3, 4 and 5 are shown in Table 3.

<b>Table 3 — Ambient conditions of climate classes 3, 4 and 5</b>				
Test room climate class	Dry bulb temperature, $^{\circ}\text{C}$	Relative humidity, %	Dew point, $^{\circ}\text{C}$	Water vapour mass in dry air, g/kg
3	25	60	16.7	12.0
4	30	55	20.0	14.8
5	40	40	23.9	18.8



## ANNEX X

### Verification procedure for market surveillance purposes

For the purposes of assessing conformity with the requirements laid down in Articles 3 and 4, Member State authorities shall apply the following verification procedure:

1. The Member State authorities shall test one single unit per model.
2. The model shall be considered to comply with the applicable requirements provided the following requirements are met:
  - (a) the measured volume is not lower than the rated value by more than 3%;
  - (b) the measured value of energy consumption is not greater than the rated value (E24h) by more than 10%.
3. Where the result referred to in point 2 is not achieved, the Member State authorities shall randomly select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more different models which have been listed as equivalent product in the technical documentation.
4. The model shall be considered to comply with the applicable requirements provided the following requirements are met:
  - (a) the average of the three units for the measured volume is not lower than the rated value by more than 3%;
  - (b) the average of the three units for the measured value of energy consumption is not greater than the rated value (E24h) by more than 10%.
5. Where the results referred to in point 4 are not achieved, the model and all other equivalent professional refrigerated storage cabinet models shall be considered not to comply with this Regulation. The Member State authorities shall provide the test results and other relevant information to the authorities of the other Member States and to the Commission within one month of the decision being taken on the non-compliance of the model.

Member State authorities shall use the measurement and calculation methods set out in Annexes VIII and IX.

The verification tolerances set in this Annex shall be applied only to the verification of the measured parameters by Member State authorities, representing the allowed variations of the measurement results of the verification tests, and shall not be used by the supplier in establishing the values in the technical documentation or in interpreting these values with a view to achieving a better labelling classification or to communicate better performance by any means.