

# THE GULF TECHNICAL REGULATION FOR LOW VOLTAGE DEVICES

**NIST Standards in Trade Workshop  
for the GCC Standardization Organization (GSO)  
on the Gulf Cooperation Council (GCC) Regulatory System  
for Product Control as Applied to Low Voltage Equipment  
and Toys**

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# Definitions

- For the purposes of this Directive, "electrical equipment" means any equipment designed for use with a voltage rating of between 50 and 1000 V for alternating current and between 75 and 1500 V for direct current, other than the equipment and phenomena listed in Annex II.

# General Requirement on Safety

## Objective

- Protecting users of low voltage equipments and devices , people around them, domestic animals as well as maintaining the integrity of property - where appropriate – from health risks and physical harm, when properly installed, maintained and used in applications for which it was made

## Safety Requirements

- Low voltage equipments and devices placed on the GCC common market have been constructed in accordance with good engineering practices in safety matters in force in the GCC Community Essential Requirements (Annex III)
- Producers are obliged to place only safe products on the Common Gulf Market.

# Essential Requirements

## 1. General conditions

The equipments must be designed and constructed to operate safely when used normally so as not to cause any damage to persons or animals or things around, even in cases of use without care that may occur in normal operation.

- ❑ They should not endanger the safety of persons, domestic animals or property when properly installed and maintained and used in applications for which it was made.
- ❑ Electrical equipments and devices, together with their component parts, should be made in such a way as to ensure that they can be safely and properly assembled and connected.
- ❑ Electrical equipments and devices should be designed and manufactured in such way to ensure that protection against the hazards set out in points 2 and 3 of this Annex is assured, providing that they are used in applications for which they was made and are adequately maintained.

# Essential Requirements

## 2. Protection against hazards arising from the electrical equipment

Measures of a technical nature in accordance with point 1 must be determined, in order to ensure:

- ❑ Protection of persons and domestic animals from the danger of physical injury or any other harm which might be caused by direct or indirect contact;
- ❑ Non production of temperatures, arcs or radiation which would cause a danger;
- ❑ Adequate protection of persons, domestic animals and property against non-electrical dangers caused by the electrical equipments and devices which are revealed by experience (i.e. electromagnetic effects ;
- ❑ that the insulation must be suitable for foreseeable conditions.

# Essential Requirements

## 3. Protection against hazards which may be caused by external influences

- ❑ Technical measures in accordance with point 1, must be determined in order to ensure:
- ❑ That electrical equipments and devices meet the expected mechanical requirements in such a way that persons, domestic animals and property are not endangered;
- ❑ That electrical equipments and devices are resistant to non-mechanical influences in expected environmental conditions, in such a way that persons, domestic animals and property are not endangered;
- ❑ That electrical equipments and devices do not endanger persons, domestic animals and property in foreseeable conditions of overload.

# Essential Requirements

## 4. MARKING

- The main characteristics must appear clearly on the electrical equipments or devices, by the mean of paste or marking on the device, and in case of impossibility this may be described in an attached alert or warning so as to ensure safe use when used in applications for which they were made
- the name of the mark or brand must be clearly printed on the equipment and device, or on the package if it is not possible.
- ...
- In case the equipment could be set to different voltages, the voltage set must be easily and clearly seeable.
- Symbols used ...
- Warning signs risk/prevention must be in both languages Arabic and English, unless the symbols are used in accordance with the International Standard IEC 417.

# Essential Requirements

## 4. MARKING

- ❑ In addition to the information mentioned in point 1 above, a label must be affixed to the EED – where applicable – non-removable and showing easily and clearly in both Arabic and/or English, the following:
  - ❖ Rated voltage in volts.
  - ❖ Symbol of the nature of alimentation, unless the rated frequency in Hz is indicated.
  - ❖ Input rated power in watts , or rated current in amperes.
  - ❖ name of the manufacturer, responsible supplier, or it's trademark.
  - ❖ Model or it's reference number
  - ❖ international protection number ("IP") corresponding to the degree of protection against the ingress of water, if this number is different from ("IPXO").

# Essential Requirements

## 5. INSTRUCTION BOOKLET

- EED must be accompanied by a booklet instructions in both Arabic and/or English, so as to explain, in addition to the information referred to in item 4 above - where applicable -the following:
- Method of installation or assembly;
- supply method.
- Control method.
- Instructions for safe use
- Maintenance.

So that the installer could be able to carry out such operations effectively and without any danger

# Essential Requirements

## ...Complementary requirements

### Annex IV

Given the wide range and scope of application of this Regulation, making it impossible to determine the essential requirements contained in technical regulations, and Gulf national, international and European standards on EED, therefore EED must meet the requirements contained in this Regulations, in addition to those contained in the sectorial regulation corresponding to the product family which the device or equipment in question belongs to.

# Use of Standards & presumption of conformity

1. Gulf Standards 851
  - 84% IEC Standards
  - 5% (mandatory Standards)

## In Absence of Gulf Standards

2. International or Regional Standards
  - IEC
  - CENELEC

## In Absence of Gulf Standards

3. Acceptance of conformity to equivalent safety provisions of standards in force in country of manufacture.

# Requirements on Conformity Assessment

- ❑ Before being placed on the market, the EED must have affixed to it the GCC marking provided for in Article 10 attesting to its conformity to the provisions of this Regulation, including the conformity assessment procedure described in Annex IV.
- ❑ In the event of a challenge, the manufacturer or importer may submit a report, drawn up by a body, which is notified in accordance with Article 12, on the conformity of the electrical equipment with the provisions of Article 2.

# Requirements on Conformity Assessment

- ❑ Where the EED is not covered by any sectorial Regulation:
  - ❖ Internal Production Control
- ❑ In case the EED is covered by a sectorial regulation:
  - ❖ The considered regulation will determine the procedure of Conformity Assessment to conduct for each family of products.

# Requirements on Conformity Assessment

## Internal Production control

8-1 The procedure whereby the manufacturer or his authorized representative established within the GCC member states, who carries out the obligations laid down in point 8-2, ensures and declares that the EED satisfies the requirements of the Regulation that apply to it.

The manufacturer or his authorized representative established within the GCC member states must affix the GCC marking to each product and draw up a written declaration of conformity.

# Requirements on Conformity Assessment

## Internal Production control

8-2 The manufacturer must establish the technical documentation described in point 8-3 and he or his authorized representative established within the GCC member states must keep it on Community territory at the disposal of the relevant national authorities for inspection purposes for a period ending at least 10 years after the last product has been manufactured.

Where neither the manufacturer nor his authorized representative is established within the Community, this obligation is the responsibility of the person who places the EED on the Community market.

# Requirements on Conformity Assessment

## Internal Production control

- 8-3 Technical documentation must enable the conformity of the electrical equipment to the requirements of this Directive to be assessed. It must, as far as relevant for such assessment, cover the design, manufacture and operation of the electrical equipment. It must include:
- ❖ a general description of the electrical equipment,
  - ❖ conceptual design and manufacturing drawings and schemes of components, sub-assemblies, circuits, etc.,
  - ❖ descriptions and explanations necessary for the understanding of said drawings and schemes and the operation of the electrical equipment,
  - ❖ a list of the standards applied in full or in part, and descriptions of the solutions adopted to satisfy the safety aspects of this Directive where standards have not been applied,
  - ❖ results of design calculations made, examinations carried out, etc.,
  - ❖ test reports.
  - ❖ Risk Assessment (revision)

# Requirements on Conformity Assessment

## Internal Production control

- 8-4 The manufacturer or his authorized representative must keep a copy of the declaration of conformity with the technical documentation.
- 8-5 The manufacturer must take all measures necessary in order that the manufacturing process ensure compliance of the manufactured products with the technical documentation referred to in point 2 and with the requirements of this Regulation that apply to them.

# Requirements on Conformity Assessment

## Declaration of Conformity

- ❑ The GCC declaration of conformity must contain the following elements:
  - ❖ name and address of the manufacturer or his authorized representative established within the Community,
  - ❖ a description of the electrical equipment,
  - ❖ reference to the standards,
  - ❖ where appropriate, references to the specifications with which conformity is declared,
  - ❖ identification of the signatory who has been empowered to enter into commitments on behalf of the manufacturer or his authorized representative established within the Community,
  - ❖ the last two digits of the year in which the CE marking was affixed.

# OTHERS OBLIGATIONS - Producers



- Consumers information on risks
- Adopt measures to enable them to take control over safety
- Active participation in market safety monitoring

# OTHERS OBLIGATIONS - Distributors



- Active participation in market safety monitoring
- Providing relevant information on products safety
- Taking actions and participating in measures initiated by Producers and/or Governmental Authorities

# POWERS OF MEMBER STATES

## Application Procedures

- Member States shall ensure that producers and distributors comply with their obligations
- shall establish or nominate authorities competent to monitor the compliance of products with the essential requirements
- Proportionate actions to be taken



# THANK YOU

## ANY QUESTIONS ?



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