



ETHIOPIAN ELECTRICITY AGENCY



**DIRECTIVE ON COLOUR IDENTIFICATION, SAFETY SIGNS
AND
CONSUMER SAFETY**

**Addis Ababa
September 2006**

ETHIOPIAN ELECTRICITY AGENCY

P.O.Box 2554, Addis Ababa

Tel. 011-550-77-35/52/54

Fax 011-550-77-34

E-mail:- e.agency@ethionet.et

Web Site:- www.ethioelectricagency.org

DIRECTIVE ON COLOUR IDENTIFICATION, SAFETY SIGNS AND CONSUMER SAFETY No. EEA/2 /2006

1. Issuing Authority

This Directive is issued by the Ethiopian Electricity Agency pursuant to the authority vested in it by Articles 40, 43 and 44 of Electricity Operations Council of Ministers Regulations No. 49/1999.

2. Short Title

This Directive may be cited as the "Directive on Colour Identification, Safety Signs and Consumer Safety No. EEA/2/2006".

3. Definitions

Unless their context requires otherwise, words used in this Directive hereto shall have the definitions given to them in the Electricity Proclamation No. 86/1997, Electricity Operations Council of Ministers Regulations No. 49/1999, and Directives issued thereunder. Other definitions used in this Directive are:

- 3.1 "Alternating Current Circuit" shall mean an electrical circuit where the current reverses its direction of flow regularly.
- 3.2 "Bare Conductor" shall mean a conductor having no covering or electrical insulation whatsoever.
- 3.3 "Direct Current Circuit" shall mean an electrical circuit where the current flows in a fixed direction.
- 3.4 "Insulated Conductor" shall mean a conductor encased within material of sufficient composition and thickness giving it electrical insulation.

4. Objective of the Directive

The objective of this Directive is to determine safety related measures that minimize electrical accidents that can cause injury or death to humans and loss of property.

5. Colour Identification of Electrical Conductors

- 5.1 The provisions of this Article shall be applicable to electrical cables, bare conductors and busbars in the following installations of Licensees and their customers:
 - a. Substations;
 - b. Ground-mounted distribution transformers or net-stations;
 - c. Service lines of the distribution network;
 - d. Customers' distribution busbars.

- 5.2 Every single core cable and every core of multi-core cable for use as fixed wiring shall be identifiable at its terminations and preferably throughout its length.
- 5.3 The identification of insulated conductors shall be by the colour of the insulation or by colour markers.
- 5.4 Bare conductors and busbars shall be identified by the application of tape, sleeve, colour marker, or disc of the appropriate colour.
- 5.5 Protective earth conductors shall be marked by **green-and-yellow** bi-colour.
- 5.6 Neutral of conductors or busbars shall be identified by **light blue** colour.
- 5.7 Colours other than green-and yellow bi-colour and light blue may be used to identify any phase conductor of alternating current circuits and positive conductor of direct current circuits.

6. Safety Signs and Cautionary Notices

- 6.1 The provisions of this Article shall be applicable to any location and installation of Licensees with high or medium voltage levels that can endanger human life including, but not limited to:
 - a. Equipment and installations inside power stations and substations as well as their perimeter walls or fences;
 - b. Ground-mounted distribution transformer enclosures;
 - c. Supports carrying high voltage overhead lines.
- 6.2 Locations and installations of a Licensee that have exposed live parts with high or medium voltage levels dangerous for humans and that can otherwise be easily accessed by the public must be adequately protected by fencing, enclosing or other means to ensure the safety of the public.
- 6.3 Licensees shall ensure that there are at all times displayed sufficiently and in a conspicuous position:
 - a. Safety signs with the sign of skull and bones and a warning text "Dangerous" at such locations and positions where access to the installation will expose humans to fatal injury to give due warning of such danger as is reasonably foreseeable under the circumstances;
 - b. Notices that give the location or identification of the plant, substation, tower, pole or other installation;
 - c. Such other signs or cautionary notices as are necessary to give due warning of danger with regard to the site and nature of the installation and measures to be taken to ensure the security of humans and equipment or installation.

- 6.4 Safety and cautionary signs and notices shall be written in Amharic, English and the local language of the area.

7. Safety of Electricity Consumers

- 7.1 Every Distribution and Sale Licensee shall publish and distribute to its customers leaflets, posters and pamphlets containing text instructions and illustrations on electricity safety rules and rescue measures based on internationally acceptable practices.
- 7.2 The publications referred to in Sub-Article 1 of this Article shall cover, among other things, the following issues:
- a. How to protect oneself from electrical hazards;
 - b. How to treat victims of electric shock;
 - c. General rules for the safe and proper use of electricity in residential and working environments.
- 7.3 The publications shall be written in Amharic, English and the local language of the area.
- 7.4 Every Distribution Licensee shall submit the publications to the Agency for approval prior to their distribution.
- 7.5 Any person demanding to get the publications referred to in Sub-Article 1 of this Article shall get the leaflets and posters free of any charge whereas a reasonable selling price, not exceeding 3 (three) Birr, may be fixed for the pamphlets.

8. Effective Date

These Directives shall enter into force as of the 8th day of September 2006.

Done at Addis Ababa, this 8th day of September 2006

GETAHUN MOGES

DIRECTOR GENERAL OF THE ETHIOPIAN ELECTRICITY AGENCY