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KINGDOM OF BELGIUM

PUBLIC FEDERAL SERVICE FOR THE ECONOMY, SMES, THE MIDDLE CLASSES AND ENERGY AND THE PUBLIC FEDERAL SERVICE FOR EMPLOYMENT, WORK AND SOCIAL DIALOGUE

Royal Decree amending Article 242 of the General Regulations on Electrical Installations

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ALBERT II, King of the Belgians,

To all those present and to come, Greetings.

Having regard to the Law of 10 March 1925 on electrical energy distribution, and in particular Article 21(1);

Having regard to the Law of 4 August 1996 on the well-being of workers while performing their work, and in particular Article 4(1);

Having regard to the Royal Decree of 10 March 1981 rendering obligatory the observance of the General Regulations on Electrical Installations for domestic installations and certain transport and electricity distribution lines and the Royal Decree of 2 September 1981 amending the General Regulations on Electrical Installations and rendering their observance obligatory in establishments classed as dangerous, insanitary or in which noisy or noxious trades are carried out as well as those referred to in Article 28 of the General Regulations on Employment Protection, amended by the Royal Decrees of 29 May 1985, 7 April 1986 and 30 March 1993;

Having regard to the General Regulations on Electrical Installations annexed to the Royal Decree of 10 March 1981, in particular Article 242, amended by the Royal Decrees of 29 May 1985, 7 April 1985 and 7 May 2000;

Having regard to the opinion of the Standing Committee on electricity of 21 December 2001;

Having regard to the opinion of the Higher Council for prevention and protection in the workplace of 28 February 2003;

Having regard to the fulfilment of the formalities laid down by Directive 98/34/EC of the European Parliament and of the Council laying down a procedure for the provision of information in the field of technical standards and regulations;

Having regard to the laws on the Council of State, consolidated on 12 January 1973, in particular Article 3(1), replaced by the Law of 4 July 1989 and amended by the Law of 4 August 1996;

Having regard to urgency;

Whereas the provisions laid down in this Decree constitute amendments to legislation which need to be rendered obligatory without delay in order to guarantee safety and to avoid impeding the free movement of devices conforming to the European standard;

On the proposal of Our Minister for Work, Our Minister for Energy and Our Secretary of State for the Organisation of Work and for Well-Being at Work,

We have decreed and hereby decree:

Article 1. - For the purposes of this Decree, "Regulations" shall be understood to mean the General Regulations on Electrical Installations, the subject of the Royal Decree of 10 March 1981 rendering obligatory the observance of the General Regulations on Electrical Installations for domestic installations and certain electricity transmission and distribution lines and the Royal Decree of 2 September 1981 amending the General Regulations on Electrical Installations and rendering their observance obligatory in establishments classed as dangerous, insanitary or in which noisy or noxious trades are carried out as well as those referred to in Article 28 of the General Regulations on Employment Protection, amended by the Royal Decrees of 29 May 1985, 7 April 1986 and 30 March 1993.

Article 2.- In Article 242 of the Regulation, the following amendments are made:

1- in point 07(1), the word “omnipolaires” [omnipolar] is deleted;

2- point 08 is replaced by the following point:

"08.- Discharge lamps supplied by transformers, converters or inverters

08.1. Scope

This Article applies to discharge lamps which are not part of public lighting installations and which are supplied by a transformer, converter or inverter with a no-load rated output voltage greater than 1 kV but not exceeding 10 kV.

08.2. Fixed installations

a. Supply circuit

Discharge lamps shall be supplied by a special low voltage circuit branching from the principal switchboard or from an auxiliary distribution panel. This special circuit shall be fitted with an omnipolar switch called the “normal switch”, controlling the auxiliary equipment of the discharge lamps, which includes transformers, converters or inverters.

Any other switch in this circuit shall also be omnipolar.

b. Transformers, converters or inverters

It shall be prohibited to use an autotransformer to supply discharge lamps. Transformers, converters or inverters shall comply with the specifications of relevant standards approved by the King or registered by the IBN or with provisions which guarantee a level of safety that is at least equivalent.

c. Zoning device for the primary circuit

The primary circuit of every transformer, converter or inverter or set of transformers, converters or inverters shall be fitted, as appropriate with a zoning device indicated below.

c.1. Outdoor installations

An emergency omnipolar switch, called a “fireman’s switch”, shall be fitted outside, facing the street or passage, and preferably on the front wall, at a height of between 3 and 4 m from the ground and a maximum of 5 m horizontally from the nearest point of the lamps.

This switch shall be placed inside a cover with at least an IP54 level of protection.

This cover shall be solidly fixed in an easily accessible position. Placing switches above windows or doors is to be avoided. This switch must be operated easily from the ground by means of a suitable tool.

A pilot lamp, supplied by the primary circuit of the transformer, converter or inverter or group of transformers, converters or inverters, shall be placed inside this cover behind a window made of a transparent material. This lamp shall be lit when the primary boards of the transformer, converter or inverter or of the set of transformers, converters or inverters are live. It shall show through the window a red light clearly visible from the ground.

If the cover is made of metal, it shall be earthed.

c.2. Indoor installations

An omnipolar switch shall be placed near the discharge lamps or on the lighting board of the room in which the lamps are installed. This switch shall be identified by the indication “neon”.

d. Housing of the auxiliary equipment
The high voltage auxiliary equipment belonging to the discharge lamps shall be:

- either installed at a sufficient distance from all objects or all parts of the building whose conservation it could compromise;
- or separated from these objects or parts of the building by means of a thermally insulating screen.

If the high voltage auxiliary equipment belonging to the discharge lamps is located inside the building, it shall be placed either in a separate room from the rest of the installation, inaccessible to all unauthorised persons, or in one or more boxes made of incombustible material.

If the auxiliary equipment is located outside the building, it shall all have at least an IP44 degree of protection.

e. Wiring
It shall be prohibited to use the ground or a metal structure as a conductor.

To connect the transformers, converters or inverters to the terminal electrodes of the lamps or sockets, and to connect intermediary electrodes or sockets, conductors intended for a rated voltage at least equal to the no-load voltage of the transformers, converters or inverters shall be used.
f. Protection against direct and indirect contacts

f.1 Protection against indirect contacts shall be provided by an equipotential bonding between the metal parts of the fixed installation of the discharge lamps, with the exception of clips and fastening collars for wiring and pipes. This equipotential bonding shall be earthed by means of a protective conductor.
f.2. The covers of the transformers and of the high voltage auxiliary equipment belonging to the discharge lamps may only be opened using a tool.

f.3. High voltage circuits supplied by transformers, converters or inverters must be protected by an earth leakage protection system. This system shall remove the output voltage by cutting off the supply to the transformer, converter or inverter. To do this, an appropriate detector, located on the secondary circuit to cut-off the supply to the transformer, converter or inverter, shall be fitted.

In the event of earth leakage, the operating current of the detector may not exceed 25 mA, its triggering time may not exceed 200 ms and the voltage of the detector boards may not exceed 50 V.
If the installation includes a flashing signal, the supply of the protection system and of the reset system must be connected upstream of the flashing signal.
The earth leakage protection system shall be constructed in such a way that it is not possible to render it inoperative. If this is not the case, a device must be fitted to allow the person cited in Article 270, responsible for the conformity inspection before commissioning, to apply a seal guaranteeing the inviolability of the protection system.
f.4. For connections located within arm's reach, high-voltage connections must be fitted with additional protection which provides at least an IPXX-B degree of protection. This degree of protection must be maintained even if an accessible part of a tube is broken. If this is not the case, the high voltage circuits must be fitted with a protection system that activates when the secondary circuits are opened.

For connections located out of arm's reach, the high voltage connections must be either fitted with additional protection that provides at least an IPXX-B degree of protection or be protected by a protection system that activates when the secondary circuits are opened.

Requirements relating to the protection system that activates when the high voltage secondary circuits are opened

In the event an open circuit appears in the high voltage circuit, the system protecting against opening of the secondary circuit shall cut off the supply to the primary circuit or remove the output voltage, detection being performed by an appropriate detector connected to the output circuit or any other means providing an equivalent degree of safety.

If the installation is live with an opening fault on the secondary circuit (breakage of a tube, disconnected cable etc.) the protection system must activate within 3 to 5 seconds.

If the opening occurs while the installation is operating, the protection system must activate within 200 ms.

f.5. Protections systems that activate when the secondary circuits open and which protect against earth leakage, must be constructed using mechanical contacts. The use of semi-conductors is not permitted.

08.3. Portable devices and mobile devices

Portable and mobile devices must comply with the provisions of Articles 08.2(b), (e) and (f). The secondary no-load voltage may not exceed 8 kV."

Article 3.– This Decree shall apply to electrical installations and significant modifications or extensions to be carried out on-site that have not already been started three months after the date of publication of this Decree.

Article 4. – Our Minister for Work, Our Minister for Energy and Our Secretary of State for the Organisation of Work and for Well-Being at Work shall be responsible, each for their own part, for the implementation of this Decree.

Done at

For and on behalf of the King:

The Minister for Work,

F. VANDENBROUCKE.

The Minister for Energy,

F. MOERMAN.

The Secretary of State for the Organisation of Work and for Well-Being at Work,

A. TEMSAMANI.