

Specification for

Cabinets for the electrical euthanasia of dogs

Co-operating organizations

The Electrical Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:—

- Admiralty
- Air Ministry
- Associated Offices' Technical Committee
- Association of Consulting Engineers (Incorporated)
- Association of Supervising Electrical Engineers
- British Electrical and Allied Industries Research Association
- British Electrical and Allied Manufacturers' Association
- British Electrical Development Association
- British Railways, The British Transport Commission
- Cable Makers' Association
- Central Electricity Authority and Area Boards
- Crown Agents for Oversea Governments and Administrations
- Electric Lamp Manufacturers' Association
- Electric Light Fittings Association
- Electrical Contractors' Association (Incorporated)
- Electrical Contractors' Association of Scotland
- Engineering Equipment Users' Association
- General Post Office
- Independent Cable Makers' Association
- Institution of Electrical Engineers
- Ministry of Power
- Ministry of Labour and National Service (Factory Inspectorate)
- Ministry of Supply
- Ministry of Works
- National Physical Laboratory (D.S.I.R.)
- Oil Companies Materials Committee
- Public Transport Association (Incorporated)
- Radio Industry Council
- South of Scotland Electricity Board
- War Office

The organization marked with an asterisk in the above list, together with the following, were directly represented on the Committee entrusted with the preparation of the standard:—

- British Veterinary Association
- Our Dumb Friends League
- Royal Society for the Prevention of Cruelty to Animals
- Universities Federation for Animal Welfare
- Individual Manufacturers

This British Standard, having been approved by the Electrical Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 23 October 1957

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Foreword

This standard makes reference to the following British Standards:—

BS 7, *Rubber-insulated cables and flexible cords for electric power and lighting.*

BS 350, *Conversion factors and tables.*

BS 816, *Requirements for electrical appliances and accessories.*

BS 2004, *Polyvinyl chloride insulated cables and flexible cords for electric power and lighting.*

This British Standard has been prepared under the authority of the Electrical Industry Standards Committee as a result of a request from the British Veterinary Association.

In the destruction of dogs by electrical means certain precautions must be taken to ensure that the procedure is humane. This necessitates the use of high voltages and renders the use of a cabinet method essential in order to safeguard the operator.

To ensure that no undue suffering occurs it is necessary to produce unconsciousness in the shortest possible time. This can be achieved by passing a sufficient current through the head from side to side. Such a current does not, however, necessarily kill the dog and it is therefore necessary to pass an additional current through the body to stop the heart. These currents may be simultaneous, or the head current may pass before the body current.

In this specification the latter method has been standardized as it gives the operator opportunity to observe that the dog has been stunned before the killing voltage is applied.

The question of an automatic method for the delivery of the two shocks in sequence is under consideration and may form the subject of a further specification.

NOTE Where metric equivalents have been given, the figures in British units are to be regarded as standard. The metric conversions are approximate. More accurate conversions should be based on tables in BS 350, "*Conversion factors and tables*".

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This standard gives requirements for the construction, safety and performance of electrical euthanasia cabinets for dogs. Details of tests necessary to ensure compliance with the standard are also given. The specification covers apparatus designed for operation from an electricity supply the voltage of which does not exceed 250 volts.

Section 1. Design and construction

2 Cabinet

The cabinet shall be so designed and constructed that it is capable of effectively rendering dogs unconscious and then killing them without danger to the operator or surroundings.

It shall be soundly constructed and of adequate strength and shall pass the mechanical strength tests of Clause 18.

The cabinet, or that part in which the animal stands, shall be constructed of, or lined with, non-absorbent insulating material and shall be so designed that there are no awkward corners that are difficult to clean.

The cabinet shall be provided with sufficient observation windows to give adequate illumination and allow clear visibility of the whole of that part in which the animal stands.

The means provided for securing the animal shall be firmly attached to the cabinet.

Materials liable to corrosion shall be adequately protected.

The cabinet shall be provided with electrical equipment capable of complying with the performance requirements of this standard.

3 Electrodes

a) **General.** The cabinet shall be provided with three electrodes. Two of these shall be in the form of clips suitable for attaching to the animal's ears. The third electrode shall be a clip or a chain suitable for attachment to one of the hind legs.

The electrodes shall be made of materials which will not develop a non-conducting corrosion film through the action of salt solution, soaps, detergents or urine. There shall be no sharp edges or corners on those parts of the electrodes which can come in contact with the animal.

b) **Clip electrodes.** Clip electrodes shall be so designed that the contact members can be separated with one hand.

i) *Contact pads.* Each clip electrode shall be provided with two contact pads of absorbent material so arranged that the contact with the animal is made through the pads.

The contact area of each pad shall be not less than half a square inch (3.22 sq. cm) and the pads shall be readily replaceable. The pads shall be of such material and size that they will pass the absorbency test of Clause 29.

The pad mountings of the ear electrodes shall be such that the pads are free in their supports to rotate in the plane of the contact area and can tilt in any direction up to an angle of 20° with the line passing through the two points of attachment to the clips.

ii) *Connection.* Each clip electrode shall be connected to the output terminals by means of a flexible cord. The connection shall be made through a plug and socket or similar device at either or both ends of the connecting cord.

If any means are adopted for taking up the slack in the electrode leads the tension shall not be sufficient to pull a clip off the animal's ear.

iii) *Weight and contact pressure*

A. *Ear clips.* The weight of the ear clip, together with a 1 ft (30.5 cm) length of the connecting cord, and the clip connector, if any, shall not exceed 4 oz (113 g).

The pressure exerted by the ear pads, when separated by a distance of $\frac{1}{10}$ in. (2.5 mm) shall be not less than $1\frac{1}{2}$ lb/sq. in. (0.11 kg/sq. cm). The total force exerted with a separation of $\frac{3}{8}$ in. (9.5 mm) shall not be greater than 10 lb (4.5 kg).

When fully open, the separation of contact pads shall be not less than $\frac{3}{4}$ in. (19.0 mm).

The distances of separation shall be measured in the line passing through the points of attachment of the pad mountings to the clips.

B. *Leg clips.* The force necessary to separate the pads shall be not less than $1\frac{1}{2}$ lb (0.68 kg) with a separation of $\frac{1}{10}$ in. (2.5 mm) and not greater than 10 lb (4.5 kg) with a separation of 1 in. (25.4 mm). When fully open the separation shall be not less than $1\frac{1}{2}$ in. (38.1 mm).

For the purposes of these measurements, the separation shall be the average of the separation of the pad mounting at the points nearest to and furthest from the fulcrum.

The jaws shall be capable of opening far enough to admit a cylinder of $1\frac{1}{2}$ in. (38.1 mm) diameter.