Please be aware that this PDF has been created from the original hardcopy document, which might not be in good condition and so the PDF might reflect this.

BSI Group
389 Chiswick High Road
London, W4 4AL
United Kingdom

T: +44 20 845 086 9001
F: +44 20 8996 7400
cservices@bsigroup.com
bsigroup.com

British Standards Limited
Registered in England no: 07864997
Registered address: 389 Chiswick High Road
London, W4 4AL, United Kingdom

OFFICE COPY.

OBSOLETE superseded by CP 1008

BRITISH STANDARD CODE OF PRACTICE

B.S. 1086 : 1942

O Amd

MAINTENANCE OF ELECTRICAL SWITCHGEAR

THIS BRITISH STANDARD, having been approved by the Electrical Industry Committee and endorsed by the Chairman of the Engineering Divisional Council was published under the authority of the General Council on 10th December, 1942.

In order to keep abreast of progress in the industries concerned, the British Standards are subject to periodical review. Suggestions for improvements will be recorded and in due course brought to the notice of the Committees charged with the revision of the Standards to which they refer.

Price 3/- net, post free 2/8.

BRITISH STANDARDS INSTITUTION

Incorporated by Royal Charter

28 VICTORIA STREET, LONDON, S.W.1

Telegrams : Standards, Sowest, London. Telephone : Abbey 3333

BRITISH STANDARD CODE OF PRACTICE FOR THE

MAINTENANCE OF ELECTRICAL SWITCHGEAR

INCLUDING SAFETY OF PERSONNEL AND OF EQUIPMENT

CONTENTS

SECTION 1. SCOPE

1. Electrical switchgear, by the nature of the service it renders, does not automatically make any call for that maintenance attention which, nevertheless, is necessary to ensure its efficient functioning at all times. Its normally quiescent condition does not draw attention to incipient faults nor to the dangers resulting from general neglect.

It follows therefore that only a regular and organised scheme of maintenance work, planned to cover all its details, can ensure continued satisfactory operation with minimum of liability to faults and interruptions of supply.

The purpose of this code of practice is to provide in convenient form a record of those matters which experience has shown to be of importance in keeping electrical switchgear and its auxiliary devices (see B.S. 162, Electric Power Switchgear) in good working condition. Attention is drawn to the precautions which should be observed in order to secure safety of personnel while maintenance or reconditioning work is in progress. Some comments are made also regarding safety of equipment and precautionary measures to minimise hazards to plant and service. Finally a few notes are given on the subject of testing as a means for detecting insulation weaknesses which may be developing in switchgear equipments.

The application of this code of practice to Motor Control Gear coming within the scope of B.S. 587 (Motor Starters and Controllers), B.S. 140 (Liquid Starters and Controllers) and B.S. 775 (Contactors), was

not envisaged by the drafting Committee and it should be appreciated that the conditions under which gear of this description operates and the characteristics of the gear itself, are quite distinct from those obtaining for switchgear of the types dealt with in this code.

NOTE. Attention is drawn to the memorandum by the Senior Electrical Inspector of Factories on the Electricity Regulations (made under the Factory and Workshop Acts, 1901-1929, and applicable to premises under the Factories Act, 1927) published by H.M. Stationery Office (Form 928). Publication temporarily suspended.

Where reference is made to "Regulations" in the following recommendations it is the Electricity Regulations given and commented upon in the above memorandum to which reference is made.

SECTION 2. GENERAL

2. The preparation of a maintenance scheme for switchgear will properly commence with a general review of the system with its division into sections where necessary, allocation of staff and the preparation of programmes and time-tables to cover the required operations in detail; and finally a recording or logging system which reports on work done and calls attention to anything out of the ordinary.

'The Electricity Supply Regulations, 1937, for securing the safety of the Public and Insuring a Proper and Sufficient Supply of Electrical Energy' with certain minor exceptions apply to all electricity undertakings, and on premises constituting a factory* under the Factories Act, 1937, the requirements of the Electricity Regulations must be met.

Form 928,† Memorandum by the Senior Electrical Inspector of Factories on the Electricity Regulations, is a very useful commentary on the subject and should be available to those responsible for maintenance work.

The fact that switch rooms or houses are often kept locked up is frequently responsible for their use as stores for various articles quite unrelated to their function. Such a practice should not be permitted as it infers access by unauthorised persons, increases fire-risk, militates strongly against cleanliness and order and may even impede proper ventilation.

Tools and instruments for maintenance work should be properly housed in racks or cupboards and, if of a special character, their purpose should be clearly indicated. The tools and instruments should be regularly checked against an inventory of the apparatus.

Most manufacturers provide instruction books which set out clearly the manner in which the apparatus functions, the methods of adjustment and how maintenance attention should be given. Such books should be available to the maintenance staff, and, in every switchroom, receptacles should be provided for their safe keeping together with the inventory of tools and instruments.

SECTION 3. SAFETY OF PERSONNEL

3. Generally the responsibility in a factory for the safety of anyone dealing with electrical apparatus rests with the occupier of the premises in

*An electricity station or substation is generally a 'factory.'

† Publication temporarily suspended.