

Code of practice for

In-core instrumentation for neutron fluence rate (flux) measurements in power reactors

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Cooperating organizations

The Nuclear Engineering Standards Committee, under whose direction this British Standard was prepared, consists of representatives from the following scientific and industrial organizations:

- Association of Consulting Engineers*
- British Electrical and Allied Manufacturers' Association (BEAMA)
- British Insurance (Atomic Energy) Committee
- Electricity Supply Industry in England and Wales*
- Health and Safety Executive*
- Hevac Association
- Institution of Mechanical Engineers
- Lloyd's Register of Shipping
- National Radiological Protection Board*
- Scientific Instrument Manufacturers' Association*
- The Institution of Nuclear Engineers*
- United Kingdom Atomic Energy Authority*
- Water-tube Boilermakers' Association

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- Association of University Protection Officers
- British Industrial Measuring and Control Apparatus Manufacturers Association
- British Institute of Radiology
- British Nuclear Forum
- British Steel Industry
- Business Equipment Trade Association
- Control and Automation Manufacturers' Association (BEAMA)
- Electronic Engineering Association
- Hospital Physicists' Association
- Ministry of Defence
- Society for Radiological Protection
- Individual companies

This British Standard, having been prepared under the direction of the Nuclear Engineering Standards Committee, was published under the authority of the Executive Board on 30 June 1978

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The following BSI references relate to the work on this standard:
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National foreword

This British Standard is identical with IEC 568:1977 “*In-core instrumentation for neutron fluence rate (flux) measurements in power reactors*” and it is published under the direction of the Nuclear Engineering Standards Committee.

The United Kingdom has taken part in the preparation of this International Standard by Subcommittee 45A of Technical Committee No. 45 of the International Electrotechnical Commission (IEC).

The formal decisions or agreements of IEC on technical matters, prepared by technical committees on which all the national committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.

They have the form of recommendations for international use and they are accepted by the national committees in that sense.

Terminology. The text of the International Standard has been accepted as suitable for publication, without alteration.

Certain terminology is not identical with that used in British Standards; attention is especially drawn to the following.

Wherever the word “standard” appears, referring to this publication, it should be interpreted as “British Standard”.

Cross references. For each of the following references to International Standards given in the text, there is a corresponding British Standard; these are as listed below:

International Standard	Corresponding British Standard
IEC 231:1967	
IEC 231A:1969 (includes clause 5: Protection system clause 8: General alarms)	BS 4877:1972 <i>Recommendation for general principles of nuclear</i>

NOTE 1 The reference to IEC 231B:1972 “*Second supplement. Principles of instrumentation of direct cycle boiling water power reactors*”, for which there is no corresponding British Standard, constitutes informative matter only, and since no mandatory requirements are involved, the validity of this British Standard is not affected.

NOTE 2 After consultation with the responsible committee, approval has been given to the adoption of IEC 515:1975 “*Radiation detectors for the instrumentation and protection of nuclear reactors; characteristics and test methods*” as a dual-numbered British Standard.

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 6, an inside back cover 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.