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Foreword

This Japanese Industrial Standard translation has been established by the Minister of Health, Labour and Welfare and the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal of establishing a Japanese Industrial Standard submitted by Japanese Society of Radiological Technology (JSRT)/Japanese Standards Association (JSA), with a draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

This Standard has been made based on **IEC 61223-2-8/CD62/277/CDV** *Evaluation and routine testing in medical imaging departments — Part 2-8 : Constancy tests — Protective shielding, -barriers and -devices* for the purpose of making it easier to compare this Standard with International Standard; to prepare Japanese Industrial Standard conforming with International Standard; and to propose a draft of an International Standard which is based on Japanese Industrial Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public. The relevant Ministers and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public.

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Evaluation and routine testing in medical imaging departments — Part 2-8 : Constancy tests — Protective shielding, -barriers and -devices

Introduction

This Japanese Industrial Standard has been prepared based on **IEC 61223-2-8/CD62/277/CDV** *Evaluation and routine testing in medical imaging departments — Part 2-8 : Constancy tests — Protective shielding, -barriers and -devices*. While this Standard has incorporated corresponding parts of the **IEC** standard with some changes in technical contents, it has also added some **JIS**-specific requirements based on local conditions in Japan.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex 1 (informative).

1 Scope and object

1.1 Scope This Standard specifies requirements for PROTECTIVE SHIELDING, PROTECTIVE BARRIERS and PROTECTIVE DEVICES used in diagnostic X-ray imaging departments.

This Standard has been developed to evaluate the constancy of the attenuation properties of the above mentioned devices after a certain period of use. It covers PROTECTIVE SHIELDING, PROTECTIVE BARRIERS, RADIOLOGICAL EQUIPMENT (excluding dental X-ray EQUIPMENT), PROTECTIVE SHIELDING INSTALLED ON ASSOCIATED EQUIPMENT, or protective shielding, -barriers and -devices used to protect the OPERATOR and the PATIENT during RADIATION DIAGNOSIS.

This Standard applies to the following items:

— PRIMARY PROTECTIVE SHIELDING other than STRUCTURAL SHIELDING;

— PROTECTIVE SHIELDING AGAINST SCATTERED RADIATION including PROTECTIVE BARRIERS;

— PROTECTIVE DEVICES for RADIATION PROTECTION for OPERATORS and the PATIENTS.

1.2 Object This Standard describes a test method for evaluating the attenuation properties of PROTECTIVE SHIELDING, PROTECTIVE BARRIERS and PROTECTIVE DEVICES. The object of this Standard is to ensure that the requirements for achieving the desired level of shielding are consistently met and maintained.

The test method described is based on:

— simple radiological measurements; or

— evaluation of radiation transmission data using appropriate attenuating materials.

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