

JIS

JAPANESE INDUSTRIAL STANDARD

Source container of
measuring instrument
utilizing ionizing radiation

JIS Z 4614-1993

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standard in Japanese is to be evidence

Translated

by

Japanese Standards Association

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1. Scope This Japanese Industrial Standard specifies the requirements of the container which is used to storage the sealed radioisotope source over 3.7 MBq, which has the fire resistant structure and is used for the measuring instruments utilizing ionizing radiation (hereafter referred to as "source container").

Remarks 1. The measuring instruments utilizing ionizing radiation mentioned here means thickness meter, level meter, density meter, sulphur content meter for hydrocarbons, moisture meter, gamma-rays relay, etc. but gas chromatograph is excluded.

2. The following standards are cited in this Standard.

JIS C 0021-1987 Basic environmental testing procedures Part 2: tests, Test B: Dry heat

JIS C 0040-1987 Basic environmental testing procedures Part 2: tests, Test Fc and guidance: Vibration (sinusoidal)

JIS C 0041-1987 Basic environmental testing procedures Part 2: tests, Test Ea: Shock

JIS C 1602-1981 Thermocouples

JIS Z 4001-1991 Glossary of terms used in nuclear energy

JIS Z 4333-1990 Portable photon ambient dose equivalent ratemeters for radiation protection

JIS Z 8103-1990 Glossary of terms used in instrumentation

2. Definitions For the purposes of this Standard, the definitions given in JIS Z 4001, JIS Z 8103 and the following definitions apply:

- (1) outmost shell of source container A part of the outmost shell of source container.
- (2) radiation shield A generic term of the parts which are used to shield leakage, from the source container to outside, of radiation caused to source stored in the source container.
- (3) source holder Device which is used to directly hold radiation source.
- (4) window of source container A irradiation hole of the outmost shell of source container used for irradiation of radiation.
- (5) shutter A mechanism which is used for irradiation of radiation from the window of source container and its stop by remote or manual operation.

3. Performance

3.1 Vibration resistance The performance of source container should meet 3.3 and 3.4 without any damages and troubles when the test is performed in accordance with 6.2.