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JJG

**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JJG 825-2013

Replacing JJG 825-1993

**Verification Regulation of the Radon Measuring Instruments
(English Translation)**

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Introduction

JJF1002-2010 "national verification procedures write rules", JJF1001-2011 "common terminology and measurement Definitions ", JJF1059.1-2012" Evaluation and Expression of Uncertainty in Measurement "constitute support the revision of this Regulation the basic series of specifications.

Compared with JJG 825-1993, in addition to editorial changes, the present regulations the main technical changes are as follows.

- Relaxed radon volume activity in response to the amount of deviation limit;
- Instrument tightness canceled checks;
- Provisions measuring radon volume activity in response to the measurement range 3-point calibration measurements of the average (see 7.3.4);
- Increasing the relative intrinsic error test item (see 7.3.5).

Radon monitor

1 Scope

The order applies to the measurement range (0 ~ 10) kBq · m-3 radon environment (specifically refers to 222Rn, under Same) volume activity meter initial verification, subsequent verification and the use of checks.

2. References

This procedure references the following documents.

JJF1035-2006 ionizing radiation measurement terms and definitions GB/T 13163.1-2009/IEC 61577-1:2006 Radiation protection instrumentation - Radon and radon measuring instrument Part 1. General principles GB/T 13163.2-2005/IEC 61577-2:2000 radiation protection with radon and radon measuring instruments 2 Particular requirements for radon measuring instruments. Section IEC 61577-4:2009 Radiation protection instrumentation - Radon and radon measuring instruments - Part 4. containing radon and radon Standard gas generation device body
[Radiationprotectioninstrumentation-Radonandradondecay productmeasuringinstruments-Part 4.
Equipmentfortheproductionofreferenceat-mospherescontainingradonisotopesandtheirdecay products (STAR)] for dated references, only the dated edition applies to this procedure; undated reference documents Member, the latest edition (including any amendments) applies to this procedure.

3 terminology and units of measurement

3.1 Terms

3.1.1 Radon volume activity Radon concentration radon activity concentration Unit volume radon.

3.1.2 Standard radon reference radon atmosphere Volume activity of radon-containing gas is known.

3.1.3 Response response to reference radon atmosphere [standard radon] volume activity Indication radon monitor radon gas to be measured and the volume of activity than the real value of the agreement.

3.1.4 Relative intrinsic error the maximum relative deviation for each test point the volume of activity in response to its average.

3.2 units of measurement 3.2.1 [radioactive] activity Bq [Harrell], symbol. Bq.

3.2.2 volume activity Bq [Harrell] per cubic meter, symbol. Bq · m⁻³.