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CCS C57



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

GB/T 16146-2015

Replacing GB/T 16146-1995

Requirements for control of indoor radon and its progeny

室内氡及其子体控制要求

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Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 16146-1995 "within the housing radon concentration control standards." This standard compared with GB/T 16146-1995, Lord To technical changes are as follows:

- Standard name changed to "indoor radon and its progeny control requirements."
- Original standard "housing" to "indoors", so standard scope has expanded. But clearly this standard applies only to Caused by indoor radon and its progeny control public exposure.
- The new standards are based on ICRP Publication No. 65 (1993) as well as radiation protection ICRP statement on radon (2009) gives the Control values and indoor radon concentration of indoor radon and its progeny dose constraint. Presentation and radon concentration control value by the annual balance Equivalent to the average annual radon concentration of radon concentrations.
- Indoor radon concentration control requirements are to target levels and action levels are given, compared with the original value given the standard decreased, and International Commission on Radiological Protection and the World Health Organization's latest uniform requirement.
- Increase the average annual radon concentration measurement and estimation methods. This standard is proposed and managed by the National Health and Family Planning Commission People's Republic of China. This standard was drafted. Chinese Center for Disease Control and Prevention of the Radiation Nuclear Safety, protection and Fudan University Institute of Radiation Medicine, Guangzhou Guangxi Zhuang Autonomous Region Health Authority. The main drafters of this standard. Shang Bing, Zhuo Weihai, Cui Hongxing, Sunquan Fu, Luyou Rong, Liu Xiang. This standard was first published in 1995. Indoor radon and its progeny control requirements

1 Scope

GB/T 16146-2015 is the Chinese national standard on requirements for control of indoor radon and its progeny, in the field of environment and health protection, safety. The /T suffix

marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 2 June 2015 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 January 2016. Classification: ICS 13.280, CCS C57. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the requirements for the control of indoor radon and its progeny. This standard applies to the control of indoor radon and its progeny.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 6566 building materials radionuclide limits

GB 50325 civil engineering indoor environmental pollution control GB Z/T 182 indoor radon and its decay products measurement specification

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Indoor indoor Relatively closed space people live, work, study, social and other activities which mainly refers to residential, kindergartens, schools and hospitals And other indoor places.

3.2 Radon and radon One kind of the atomic number of radium atoms decay of element 86, is a colorless, odorless radioactive inert gas.

Note. in nature there are three isotopes of radon exist, which refers only to indoor radon isotope ^{222}Rn .

3.3 Radon daughters radonprogeny Short-lived radon decay products, including polonium -218 (^{218}Po), lead -214 (^{214}Pb), bismuth -214 (^{214}Bi) and polonium -214 (^{214}Po).

3.4 Radon concentration radonconcentration c_{Rn} Unit volume Radon radioactivity.

Note. The unit is $\text{Bq} \cdot \text{m}^{-3}$.

3.5 Radon progeny alpha potential concentration potentialalphaenergyofradonprogeny cp

Radon progeny alpha potential means complete decay of radon daughters to ^{210}Pb (not including ^{210}Pb decay) the sum of the alpha particle energy emitted by a single unit volume radon daughters potential alpha is called radon progeny alpha potential concentration.

Note. The unit is $\text{J} \cdot \text{m}^{-3}$.

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