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

GB/T 29308-2012

**Management requirement of ageing of instrumentation and
control systems important to safety for nuclear power plants**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses redrafted law revision adopted IEC 62342.2007 "Nuclear power plant instrumentation and control systems important to safety - Management of aging."

This standard and IEC 62342.2007, compared with more adjustment in the structure, listed in Appendix A of this standard and IEC 62342.2007

The reg number control list.

This standard and IEC 62342.2007 technical differences and their reasons are as follows.

- Increased HAF003 reference (see Chapter 2);
- Remove four terms and definitions that do not appear in standard text 3.1,3.9,3.13 and 3.18;
- Increased two terms and definitions (article 3.2, 3.3);
- Delete Chapter 4 background information to make the standard more concise;
- Delete Chapter 5, Table 1, so that the standard is more concise.

The standard proposed by the Defense Science and Technology Industrial Development Bureau.

This standard by the National Nuclear Instrument Standardization Technical Committee (SAC/TC30) centralized.

This standard was drafted. Beijing CTEC Systems Engineering Limited, the Daya Bay Nuclear Power Operations Management Co., Ltd., Shanghai Nuclear Engineering

Research and Design Institute.

1 Scope

This standard specifies the safety of nuclear power plant instrumentation and control important (I

Suggest.

This standard applies to all types of nuclear power plants.

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.

NB/T 20026-2010 nuclear power plant instrumentation and control systems important to safety - General requirements (IEC 61513.2001, IDT)

HAF003 quality assurance nuclear power plant safety requirements

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1

Aging ageing

Characteristics of structures, systems or components of time or using the process of gradual change.

NOTE. The degradation is due to the inherent physical mechanism of component materials produced, and with I

The impact of environmental stress generated by the operation and equipment.

3.2

Aging degradation ageingdegradation

Structures, systems or components of the physical properties due to aging mechanisms of action, in storage or operating conditions resulting from the use of time or

Gradually degraded, the results may weaken their ability to implement the desired functionality.

3.3

Aging management ageingmanagement

For the aging degradation of structures, systems and equipment to control the construction, operation and maintenance activities within acceptable limits.

3.4

Calibration calibration

Under specified conditions, to determine the value indicating measuring instrument or measuring system or material measure, or a value corresponding reference materials expressed

Standard specifies a set of operations between values.

[GB/T 4960.6-2008,3.4.42]

3.5

Channel channel

Interconnected components in the system configuration issue a single output signal. A single output signal from other channels (e.g., monitoring or

Local security drive channel) signal combined channel would cease.