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NB

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

NB/T 20259.3-2021

Replacing NB/T 20259.3-2014

**Code of valuation on bill of quantities of nuclear power plant
construction works - Part 3: Process equipment and pipe
installation**

核电厂建设项目工程量清单计价规范 第3部分：工艺设备及管道安装工程

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Foreword

This document was issued on 7 January 2021 by the National Energy Administration of the PRC and takes effect on 1 July 2021.

It is a NB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 01.040.27, Chinese classification F 02.

It replaces NB/T 20259.3-2014, which is superseded.

This code has been prepared in accordance with the Notice of the General Department of the National Energy Administration on issuing the 2017 plan for the preparation and revision of nuclear power standards of the energy industry and the plan for the translation and publication of the English versions of nuclear power standards (Guo Nei Zong Han Ke Ji [2017] No. 136), and constitutes a comprehensive revision of NB/T 20259-2014, Code of valuation on bill of quantities of nuclear power plant construction works.

NB/T 20259-2021, Code of valuation on bill of quantities of nuclear power plant construction works, comprises one set of general provisions and five sets of discipline-specific provisions. Each discipline-specific part contains both a nuclear island section and a conventional island section. The code is divided into six parts in total.

Part 1: General provisions.

Part 2: Civil and building works.

Part 3: Process equipment and pipe installation works.

Part 4: Ventilation and air conditioning works.

Part 5: Electrical equipment installation works.

Part 6: Automatic control instrumentation installation works.

This part is Part 3 of NB/T 20259.3-2021, Code of valuation on bill of quantities of power plant construction works: Process equipment and pipe installation works (hereinafter referred to as this part). It was issued by Announcement of the National Energy Administration [2021] No. 1, with approval date 7 January 2021 and implementation date 1

July 2021.

This part was proposed by the Technical Committee for Standardization of Nuclear Power of the Energy Industry.

This part is under the administration of the Nuclear Industry Standardization Research Institute.

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1 Scope

NB/T 20259.3-2021 is Part 3 of the Chinese code governing bill of quantities valuation for nuclear power plant construction, and it covers process equipment and pipe installation. A bill of quantities code is not a price book: it fixes the rules by which quantities are described, coded and measured so that every tenderer prices the same work, and so that a submitted price can be compared and checked. This part sets the general provisions and the defined terms, the general rules on how a bill is compiled and priced, and the way items are established and coded for the process scope of a nuclear plant. It then gives the item schedules: for each item a code, a description, the unit of measurement, the rules for calculating the quantity, and the work content the item is deemed to include. The coverage runs across the process equipment of the nuclear and conventional islands - vessels, heat exchangers, pumps, tanks, filters and the specialised nuclear components - and the pipework that connects them, with its supports, valves, fittings, welding, pressure testing, cleaning and insulation. Risk allocation between owner and contractor, the treatment of variations and of provisional sums, and the format of the bill complete the document. It replaces the 2014 edition, and is used by owners, contractors and cost consultants when tendering and settling nuclear power works in China.

This part specifies the bill of quantities item setting, the units of measurement and the measurement rules for the sectional and elemental items and for the measure items of the bill of quantities of nuclear island process equipment and pipe installation works of nuclear power plant construction projects, and it establishes the item features, the main work content and the general scope of application of the bill items.

This part applies to the measurement of quantities and to the preparation of the bill of quantities in the valuation activities based on the bill of quantities carried out during the contracting and the implementation stages of nuclear island process equipment and pipe installation works of nuclear power plant construction projects.

This part covers the item setting and the quantity calculation rules for the installation works of process equipment, pipes, water supply and drainage, heating, fire fighting and lifting equipment of the nuclear island of nuclear power plant projects and of the nuclear-related BOP buildings directly connected with production.

Where an item is missing from this part or is not applicable, an additional item shall be created according to the requirements of Volume 1: General provisions of this code combined with the provisions of this part, or reference shall be made to GB 50500, Code of bills of quantities and valuation for construction works, and to the bill of quantities valuation codes of other industries. Where civil, ventilation and air conditioning, electrical or automatic control instrumentation works are involved, the items shall be listed under the corresponding item codes of the other discipline-specific provisions of this code.

2 Normative references

The following documents are indispensable for the application of this part. For dated references, only the edition cited applies to this document. For undated references, the latest edition, including all amendments, applies to this part.

NB/T 20259.1-2021, Code of valuation on bill of quantities of nuclear power plant construction works - Part 1: General provisions.

NB/T 20259.2-2021, Code of valuation on bill of quantities of nuclear power plant construction works - Part 2: Civil and building works.

NB/T 20259.4-2021, Code of valuation on bill of quantities of nuclear power plant construction works - Part 4: Ventilation and air conditioning works.

NB/T 20259.5-2021, Code of valuation on bill of quantities of nuclear power plant construction works - Part 5: Electrical equipment installation works.

NB/T 20259.6-2021, Code of valuation on bill of quantities of nuclear power plant construction works - Part 6: Automatic control instrumentation installation works.

NB/T 20023, Guidelines for the nature of costs and the breakdown of items of nuclear power plant construction projects.

GB 50500, Code of bills of quantities and valuation for construction works (cited in the scope of this part for items missing from or not applicable to this part).

3 Terms and definitions

The following terms and definitions apply to this part.

3.1.1 Adjustment and calibration of individual equipment. The work of continuity and power-on tests, no-load tests and similar activities performed by a single item of equipment on its own, without being connected to the system.