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

GB 47367-2026

Safety technical conditions for rolling equipment

轧制设备安全技术条件

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1 Scope

GB 47367-2026 is the Chinese national standard covering the safety of a rolling mill - the guarding of rolls and shears, the hot metal and the scale, the hydraulic and lubrication systems, the emergency stops and the interlocks that keep a person out of a line that can start moving on its own. A mandatory standard, first edition, 32,500 words, in force from 1 April 2027. It was issued on 31 March 2026 and takes effect on 1 April 2027, as a first edition. The document is under the responsibility of the Ministry of Industry and Information Technology. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the equipment area classification and main equipment composition of ferrous metal rolling equipment, risk assessment and risk reduction, and major hazards. Risk table, as well as safety requirements and/or measures, usage information and responsibilities. This document applies to the manufacture of the following ferrous metal rolling production line equipment. --Hot continuous rolling; --Medium and heavy plates; --Fan-rolled coil mill; --Cold continuous rolling; --Single-stand cold rolling (including ultra-thin strip mills).

4 Equipment Area Classification and Main Equipment Components

4.1 Equipment Area Classification Based on their location within the production line, production line equipment is classified as follows: --Front-end area equipment; --Equipment in the middle section area; --Back-end area equipment.

4.2 Hot Continuous Rolling Production Line The main equipment components of the hot strip rolling production line are shown in Table 1.

4.3 Medium and Heavy Plate Production Line The main equipment components of the medium and heavy plate production line are shown in Table 2.

4.4 Hot Rolling Mill Production Line The hot roll mill production line is divided into a strip production line and a medium plate production line. The main equipment components are shown in Table 3 and Table 4, respectively.

4.5 Cold Continuous Rolling Production Line The main equipment components of the cold continuous rolling production line are shown in Table 5.

4.6 Single-stand cold rolling production line The main equipment components of a single-stand cold rolling production line are shown in Table 6.

5 Risk assessment and risk reduction, major hazard table

5.1 Risk Assessment and Risk Reduction When designing production line equipment, manufacturers should conduct a risk assessment for reasonably foreseeable hazards throughout the equipment's lifecycle. This risk assessment should include... Risk analysis and risk assessment. Risk assessment shall comply with the provisions of GB/T 15706, and its implementation guidelines and methodological examples are found in GB/T 16856. If a risk event is identified as a major hazard after risk assessment, the manufacturer shall take measures to mitigate these risks, and such risk mitigation measures shall comply with... The provisions of GB/T 15706. Hazard identification should be determined based on the following conditions. --The interaction between people and equipment throughout the equipment's lifecycle; --Possible states of the equipment (e.g., normal operation and failure); --Unintended operator reflex behavior or reasonably foreseeable misuse of equipment.

5.2 Major Hazard List

5.2.1 The major hazards of production line equipment are listed in Tables 7 to

42. The following is an explanation of the table headers.

- a) Column 1, "Significant Danger", refers to the potential consequences of a significant danger.
- b) Column 2, "Dangerous Events", is a description of dangerous events.
- c) Column 3, "Safety Requirements and/or Measures," lists the safety requirements and/or measures to be met to avoid or reduce hazards. These measures include This includes necessary measures and optional measures.
- d) Column 4, "Standard/Entry", is the standard number or entry number of this document

corresponding to the specified safety requirements and/or measures.

e) Column 5, "Verification," refers to the verification methods used to identify and prove conformity. Specifically, it means. - "V". Visual inspection and verification; - "T". Test, check, and verify; - "M". Measurement, inspection, and verification; - "D". Verification of drawings or calculations.

5.2.2 Major hazards of equipment in the front and rear sections of the hot strip rolling production line are listed in Tables 7-14, 18, and

20. The hazards of equipment in the middle section... The major hazards are listed in Tables 7-11, 13 and 21-29.

5.2.3 Major hazards of equipment in the front and rear sections of the medium and heavy plate production line are listed in Tables 7 to 20; major hazards of equipment in the middle section are listed in Tables 7 to 20. Tables 7-11, 13, 21-22, 24, 28, 30-31.

5.2.4 Major hazards in the front and rear sections of the hot-rolled coil production line are listed in Tables 7-14, 18, and

20. The intermediate section... Major hazards of the equipment are listed in Tables 7-11, 13, 21-22, 24, 27-29, and 32-33; Medium plate of the hot roll mill. Major hazards of equipment in the front and rear sections of the production line are listed in Tables 7-20, and major hazards of equipment in the middle section are listed in Tables 7-11. Tables 13, 21-22, 24, 27-28, 30-31, and 33.

5.2.5 Major hazards of equipment in the front and rear sections of the cold rolling mill production line are listed in Tables 7-11, 15, and

17. The hazards of equipment in the middle section are also listed. The major hazards are listed in Tables 7-11, 13, 16, 21, 24, 29, and 34-42.

6.1.1 Basic Requirements

6.1.1.1 The design of the production line and its associated equipment (excluding electrical equipment) shall comply with the provisions of GB 5083.

6.1.1.2 The design of electrical equipment for the production line shall comply with the provisions of GB/T 5226.1.

6.1.1.3 When risk reduction cannot be achieved through intrinsically safe design, the manufacturer should select appropriate safety protection or supplementary protection measures to mitigate the risk. Fewer security risks.

Note. Intrinsically safe design refers to a preferred approach that reduces safety risks by changing the characteristics of equipment or its operation.

6.1.1.4 If residual safety risks still exist after adopting intrinsically safe design, safety

protection, or supplementary protection measures, the manufacturer shall, These risks are clearly defined in the usage information (see Chapter 7).

6.1.1.5 The manufacturer shall prepare usage information (see Chapter 7), which shall include the usage information under normal operating conditions of the production line and its associated equipment. All details required for safe operation procedures. In addition, the manufacturer should describe specific safety procedures for special operating modes such as commissioning and maintenance. measure.

6.1.1.6 The design of the operating positions of the equipment on the production line should ensure that they are located in an area that is safely accessible to the operators.

6.1.1.7 The design of safety protection devices should ensure that they can withstand the impact of normal operation of the production line and its associated equipment, such as... Damage caused by heat radiation, vibration, condensation, dust, etc.

6.1.1.8 The safe distance to prevent operators' upper and lower limbs from touching the danger zone shall comply with the provisions of GB/T 23821.

6.1.1.9 The design of fixed and movable protective devices shall comply with the provisions of GB/T 8196.

6.1.1.10 The design and selection principles of interlocking devices related to protective devices shall comply with the provisions of GB/T 18831.

6.1.1.11 The positioning of safety protection devices related to the speed of approach to human body parts shall comply with the provisions of GB/T 19876.

6.1.1.12 Other design requirements shall be implemented in accordance with

6.1.2 to 6.1.24.

6.1.4 Entry into the Production Line

6.1.4.1 Access to Operation Points Personnel needing access to all areas for operation and maintenance (such as consoles, control rooms, underground areas, inspection and service platforms) should be provided with appropriate equipment. Appropriate access methods. Access methods (such as ladders, walkways, platforms, etc.) should comply with GB/T 17888.1, GB/T 17888.2, and GB/T 17888.3. The requirements of GB/T 17888.4 are as follows: Personnel should be protected from the effects of the product, thermal radiation, and high-pressure fluid or gas jets (see Figures A.1 to A.4 in Appendix A for examples). When choosing a walking or standing surface, anti-slip materials should be used in accordance with the requirements specified in

6.3.5.6 of GB/T 15706-2012 to avoid slipping. Slips, trips, and falls caused by scale, hydraulic oil, emulsions, and/or lubricants.

6.1.4.2 Entry into the Hazardous Area When entering a danger zone, the following