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PEOPLE'S REPUBLIC OF CHINA**

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**Technical regulation on energy saving for fiberboard
production line**

纤维板生产线节能技术规范

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents" Drafting.

Please note that some contents of this document may involve patents, the publication of this document the institution does not bear the responsibility for identifying patents.

This document was proposed by the Forestry Energy Management Sub-Technical Committee of the National Energy Foundation and Management Standardization Technical Committee (SAC/TC20/SC7) and focus on it.

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1 Scope

This document defines the terms and definitions of the fiberboard production line, and stipulates the energy-saving measures, operation management, and economic operation of the fiberboard production line and comprehensive evaluation.

This document is applicable to fiberboard manufacturers.

2 Normative references

The content of the following documents constitutes an indispensable clause of the cost document through normative references in the text. Among them, dated quotations Only the version on that date is applicable to this document. For undated references, the latest version (including all amendments) is applicable to this file.

GB/T 3485 Technical Guidelines for Evaluating the Rational Use of Electricity in Enterprises
GB/T 4272 General Rules for Equipment and Pipe Insulation Technology GB/T 5856
General technical conditions for hot press GB/T 12497 Three-phase asynchronous motor
economic operation GB/T 14712 single layer hot press GB/T 17167 General rules for the
provision and management of energy measuring instruments for energy-consuming units
GB/T 18259 Artificial board and its surface decoration terms GB/T 18262 General technical
conditions for wood-based panel machinery GB 19153 Energy efficiency limit value and
energy efficiency grade of positive displacement air compressor GB 50013 Outdoor Water
Supply Design Code GB 50015 Code for Design of Building Water Supply and Drainage
GB 50034 Architectural Lighting Design Standard GB 50052 Code for Design of Power
Supply and Distribution System GB 50053 20KV and below substation design code GB
50054 Low Voltage Power Distribution Design Code GB 50822 Medium Density Fiberboard
Engineering Design Code LY/T 1005 Hot Mill Grinding Chamber Technical Conditions LY/T
1104 Rotor Type Particle Dryer Parameters LY/T 1303 Drum Chipper General Technical
Requirements LY/T 1338 Disc Chipper LY/T 1862 Technical Specification for Energy
Conservation of Pneumatic Transportation and Dust Removal System in Wood Industry
LY/T 2394 Management Specification for Energy Measuring Instruments for Forestry
Enterprises

3 Terms and definitions

The following terms and definitions defined in GB/T 18259 apply to this document.

Fiberboard Fiberboard Separate wood or other plant fiber materials into fibers, use the interweaving between the fibers and their own inherent bonding substances, or apply Adhesives, man-made boards made under heating and/or pressure conditions.

Fiberboard production line Fiberboard production line the equipment combination to complete the continuous production of fiberboard generally includes. chipper, washing

system, cooking cylinder, heat mill, glue system, Drying system, paving machine, heat press, sanding machine, panel saw, compressed air system, hydraulic system, electric control system and dust removal system, etc.

4.1 Planning and design

4.1.1

The design of the fiberboard production line should comply with the "Medium Density Fiberboard Engineering Design Code" GB 50822.

4.1.2

On the premise of meeting the relevant requirements of production process, safe production, environmental protection, energy saving and emission reduction, according to product types, characteristics, Specifications and output, etc., through scientific planning and design, so that the equipment, plant, layout, ventilation, heating, heat preservation and power supply system involved in production, Boiler thermal system, compressed air system, dust removal system, etc. achieve scientific and reasonable configuration, energy saving and high efficiency, stable operation and safe and reliable work Status, and should comply with relevant national or industry standards.

4.1.3

The substation and distribution station are set up in the load center to reduce the power loss of low-voltage lines.

4.1.4

Use capacitive compensation screen to reduce reactive power loss.

4.1.5

When the surface temperature of equipment and pipes exceeds 50°C, heat preservation and heat insulation treatment shall be carried out in accordance with GB/T 4272.

4.1.6

The layout of the general layout should meet the requirements of safe production, and the layout should be reasonable; the transportation and material transportation paths in the factory should be short and smooth.

smooth.

4.1.7

The layout of the fiberboard production workshop should adopt the direction of available natural lighting and natural ventilation. The lighting illuminance of the production workshop should meet According to the relevant regulations of GB 50034, high-efficiency energy-saving lamps should be selected.

4.1.8

The factory's water supply and drainage system should adopt energy-saving technologies and equipment, and comply with the relevant regulations of GB 50013 and GB 50015.

4.1.9

The design parameters of the hydraulic system of each equipment of the production line should meet the requirements of low power consumption, energy saving and high efficiency.

4.1.10

The comprehensive energy consumption of fiberboard production shall meet the requirements of the first-level index in LY/T 1451.

4.2 Production line equipment configuration

4.2.1

The equipment configuration of the production line should be compatible with the production capacity, types, specifications, technological process and technological advancement of the production line.

4.2.2

Select process equipment with low energy consumption, high degree of matching, and good reliability.

4.2.3

As far as possible, use low-energy energy-saving motors for equipment power to reduce power consumption.

4.2.4

Choose energy-saving transformers, contactors, relays and other electrical components.

4.2.5

The user should select equipment and equipment working parameters and power configuration according to the raw material tree species and diameter class classification.

4.2.6

The principles and technical conditions of economic operation of key motors, selection, replacement or modification shall comply with the relevant regulations of GB/T 12497.

4.2.7

The chipping system should use energy-saving chippers to meet the requirements of LY/T 1303 and LY/T 1338.