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

LY/T 3160-2024

**Monitoring method of energy conservation in forestry
(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 for standardization documents" Drafting.

This document replaces LY/T 1287-2012 "Energy-saving Monitoring Method for Wood-based Panel Hot Press", LY/T 1286-2022 "Energy-saving Monitoring Method for Wood Particle Dryer" Monitoring Method" and LY/T 3160-2019 "Energy Saving Monitoring Method for Veneer Dryer", and LY/T 1287-2012, LY/T 1286-2022 Compared with LY/T 3160-2019, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope of the content has been changed (see Chapter 1, Chapter 1 of LY/T 1287-2012);
- b) Part of the contents of normative reference documents have been changed (see Chapter 2, Chapter 2 of LY/T 1287-2012);
- c) Some contents of monitoring items have been changed (see Chapter 4, Chapter 3 of LY/T 1287-2012);
- d) Modified some contents of equipment condition inspection (see 5.3, 4.2 and 4.3 of LY/T 1287-2012);
- e) Added the test of exhaust temperature of wood chip dryer (see 5.11);
- f) Added the test of hot air recovery and utilization of wood chip dryer (see 5.12);
- g) Modified some contents of condensate recovery and thermal efficiency (see 6.1, 5.3 of LY/T 1287-2012);
- h) Modified some contents of heat transfer oil index (see 6.2, 5.4 of LY/T 1287-2012);
- i) Modified some contents of the surface temperature of the insulation layer (see 6.4, 5.6 of LY/T 1287-2012);

- j) Increased the exhaust temperature of the wood chip dryer (see 6.5);
- k) Increased hot air recovery rate of dryer (see 6.6).

1 Scope

This document specifies the energy-saving monitoring items, monitoring methods, qualification indicators and result evaluation for the main heat-using equipment in the production of wood-based panels.

This document is applicable to the production of plywood, particleboard, fiberboard and other artificial boards using steam, heat transfer oil, high-temperature flue gas and hot water as heat media.

Presses, chip dryers and veneer dryers.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 265 Determination of kinematic viscosity and calculation of dynamic viscosity of petroleum products GB/T 268 Determination of carbon residue in petroleum products GB/T 2587 General rules for energy balance of energy-consuming equipment GB/T 2588 General rules for calculation of thermal efficiency of equipment GB/T 4272 General technical rules for thermal insulation of equipment and pipelines GB/T 12712 Technical management requirements for condensate recovery and steam traps in steam heating systems GB/T 15914 Energy-saving monitoring method for steam heating equipment GB 17167 General rules for the allocation and management of energy metering instruments in energy-consuming units GB 18613 Energy efficiency limit values and energy efficiency grades for electric motors GB 19761 Energy efficiency limit values and energy efficiency grades for ventilators GB 19762 Energy efficiency limit values and energy efficiency grades for centrifugal pumps

3 Terms and definitions

There are no terms or definitions that require definition in this document.

4 Monitoring items

When monitoring energy conservation of major heat-using equipment, its condition, relevant parts and performance indicators should be inspected and tested.

Projects include.

- a) Equipment condition;
- b) Condensate recovery and utilization status (steam as heat medium);
- c) Thermal efficiency;
- d) Thermal oil related indicators (thermal oil is used as heat medium);
- e) Condensate temperature (steam as heat medium);
- f) Steam leakage rate of steam trap (steam as heat medium);
- g) Surface temperature of the insulation layer of the steam or thermal oil main pipeline;