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

GB/T 34639-2017

**Technical requirements for computer control of complete sets
of feed processing equipment**

饲料加工成套设备计算机控制技术要求

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed by the China Machinery Industry Federation. This standard by the National Feed Machinery Standardization Technical Committee (SAC/TC384) centralized. This standard was drafted unit. Nanjing University of Technology, Buhler (Changzhou) Machinery Co., Ltd., Jiangsu Shepherd Holdings Ltd., Wuhan Ming Bo Electrical Equipment Co., Ltd., Guangzhou Tiandi Industrial Co., Ltd. The drafters of this standard. Cao Chunping, Sun Yu, Wu Kai, Zhou Chunjing, Dai Zeyu, Shi Meng, Li Jincheng, Lin Shaolin. Feed processing complete sets of equipment computer control technology requirements

1 Scope

China's national standard for the computer control of complete animal feed processing plants. It specifies the technical requirements for the control system of such installations. A feed mill is a batch plant that looks simple and is not: raw materials are received and stored in dozens of bins, drawn in a recipe-specific sequence, weighed to tight tolerances, ground, mixed, conditioned with steam, pressed into pellets, cooled, screened and bagged or loaded out. The control system runs all of it, and what it is really managing is the recipe. Feed formulation is a least-cost optimisation recalculated as ingredient prices move, so the plant may run a different formula every batch, and each has to be dosed accurately because the micro-ingredients - vitamins, minerals, medication - are added in grams per tonne. Two requirements dominate: weighing accuracy, since an error there is an error in every animal fed from that batch, and traceability, because a feed safety incident has to be traced from the farm back to the delivery of the ingredient.

This standard specifies the feed processing complete sets of equipment computer control system terms and definitions, general rules, control system design requirements, control System structure, control system configuration and equipment selection, control system software and functions, control cabinet, electrical system, operating environment requirements and control system Commissioning. This standard applies to feed processing complete sets of equipment control system design, but also applies to the composition of the complete sets of equipment control of the various sections System design (hereinafter

referred to as the control system).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2887 General rules of computer space

GB/T 4208 enclosure protection (IP code)

GB 4943.1 Information technology equipment safety Part 1. General requirements

GB 12476.1 Electrical apparatus for combustible dust atmospheres - Part 1. General requirements

GB 19081 feed processing system dust explosion safety regulations

GB/T 30472 feed processing complete sets of equipment technical specifications

GB 50058 explosion hazardous environment power plant design specifications

GB 50168 Electrical Installation Engineering Cable Construction and Acceptance Code

GB 50171 electrical installations installation disk, cabinet and secondary circuit wiring construction and acceptance specifications

GB 50462 Data Center Infrastructure Construction and Acceptance Specification

3 Terms and definitions

GB/T 30472 defined and the following terms and definitions apply to this document.

3.1 Feed processing complete set of

computercontrolsystemforcompletesetsoffeedprocessing equipment Consists of one or more computers, controllers, associated hardware, software and communications networks for the operation of feedstock processing plants State and production process monitoring, control and management system.

3.2 Central control layer centralcontrollevel Subsystem responsible for the management, control and operation status monitoring of the production system composed of feed processing complete sets of equipment.

3.3 Site control layer localcontrollevel The subsystems responsible for the operation management, control and condition monitoring of the various sections in the system consisting of feedstock processing plants are also referred to as Segment control layer.