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

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Replacing GB/T 26882.1-2011

**Grain and oil storage-Monitoring and control system of
stored-grain condition-Part 1: General rule**

粮油储藏 粮情测控系统 第1部分：通则

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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 is part 1 of GB/T 26882 "Grain and Oil Storage Grain Condition Monitoring and Control System". GB/T 26882 has been published as follows part.

- Part 1: General;
- Part 2: Extension;
- Part 3: Software;
- Part 4: Information exchange interface protocol.

This document replaces GB/T 26882.1-2011 "Grain and oil storage grain condition monitoring and control system Part 1: General principles" and GB/T 26882.1- Compared with 2011, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The requirements for grain temperature sensors have been changed (see 5.2.6.1, 5.2.6.1 of the 2011 edition);
- b) Added requirements for gas concentration detection points (see 5.2.6.4);
- c) Added requirements for other grain condition detection sensors (see 5.2.6.5);
- d) The requirements for network functions have been changed (see 6.4.9, 6.4.9 of the 2011 edition);
- e) The scope of grain condition testing has been changed (see 6.5.2, 6.5.2 of the 2011 edition);
- f) The reliability technical indicators have been changed (see 6.8, 6.8 of the 2011 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2011 as GB/T 26882.1-2011;
- This is the first revision.

Introduction

At present, real-time monitoring of grain conditions through grain condition measurement and control systems has become an indispensable technical means in grain storage operations.

The control system can also cooperate with various grain storage processes to control the grain situation and ensure the storage safety of grain.

The formulation of the "Grain Condition Monitoring and Control System" provides a basis for the production and application of grain condition monitoring and control system products, which is of great significance to improving product quality and enhancing storage application Management efficiency and data sharing are of great significance.

In recent years, with the development of information technology and green grain storage technology, new requirements have been put forward for grain condition monitoring and control systems.

In addition to measuring temperature and humidity, we also added moisture, gas, and

stored grain pests, as well as ventilation, air conditioning, and circulation, which are related to grain condition detection results.

The grain storage network has gradually covered the entire storage area. In response to these changes and demands, GB/T 26882- 2011 was revised in due course.

According to the general requirements, hardware, software and information exchange content of grain condition monitoring and control systems, GB/T 26882 is planned to consist of four parts.

- Part 1: General. The purpose is to establish the overall requirements and relevant rules that the grain condition monitoring and control system needs to comply with.
- Part 2: Extension. The purpose is to establish the execution of grain condition detection and grain condition control of the extension of the grain condition measurement and control system placed at the grain silo end.

Technical requirements such as network access.

- Part 3: Software. The purpose is to establish the basic content of the application software functions and reports of the grain condition monitoring and control system.

- Part 4: Information exchange interface protocol. The purpose is to establish the information exchange interface protocol between the extension and the host computer of the grain condition monitoring and control system, and between the extension and the host computer of the grain condition monitoring and control system.

The protocol and related rules for information exchange between the system and other grain depot application systems.

Grain and oil storage grain condition monitoring system Part 1: General

1 Scope

This document specifies the model compilation, system composition, technical requirements, inspection rules, acceptance, and marking, packaging, and transportation of the grain condition monitoring and control system.

The content of grain transportation and storage is described, and the test method of grain condition monitoring and control system is described.

This document applies to grain condition monitoring and control systems used in grain and oil storage.

2 Normative references

GB/T 191