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

GB/T 17249.1-2025

Replacing GB/T 17249.1-1998

**Acoustics - Recommended practice for the design of low-noise
workplaces containing machinery - Part 1: Noise control
strategies**

声学 有机器的低噪声工作场所设计推荐方法 第1部分：噪声控制策略
(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 is Part 1 of GB/T 17249. GB/T 17249 has been published in the following parts.

--- Recommended approach for the design of low-noise workplaces for acoustic machinery Part 1: Noise control strategies;

--- Recommended design of low-noise workplaces for acoustic machinery Part 2: Noise control measures;

--- Acoustics. Guide for design of low noise workplaces. Part 3: Sound propagation and noise prediction in workplaces.

This document replaces GB/T 17249.1-1998 "Guidelines for the design of acoustically low-noise workplaces - Noise control planning" and Compared with GB/T 17249.1-1998, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Changed the terms "measured surface sound pressure level", "measured noise emission value", "noise emission plate value", "single value noise emission "Signage value", "Two-value noise emission signage value", "Noise exposure", "Noise exposure", "Noise exposure level and noise exposure level" the names are "surface sound pressure level", "noise emission measurement value", "noise emission indication value", "single value indication value of noise emission", "noise emission "Dual-value indication of noise exposure", "noise exposure at work", "individual noise exposure", "noise exposure and noise exposure descriptor" (see 3.2.4~3.2.6, 3.2.8, 3.2.9, 3.3.1~3.3.3 of the 1998 edition);

--- Changed the description of "noise condition description" and added the application scenarios and necessary element information of noise prediction (see 5.2, 5.2 of the 1998 edition);

--- Added a chapter on "Parties" (see Chapter 6);

--- Added the content of "Issues that the purchaser should consider" (see 8.1);

--- Added the content of "verification of noise emission level and/or noise exposure level" (see 8.6).

This document is equivalent to ISO 11690-1:2020 "Recommended methods for design of low-noise workplaces for acoustic machinery - Part 1: Noise Noise Control Strategies.

The following minimal editorial changes were made to this document.

--- Deleted the reference to the obsolete ISO 10053 in the note to 3.4.4.

Introduction

Several national standards specify methods for noise measurement and/or assessment. GB/T 17249 Low-noise workplace equipment for acoustic machinery the ultimate goal of the Recommended Design Methods is to reduce noise.

This document provides some noise control measures. However, to achieve full effectiveness, it is important to select the most appropriate noise control measure for a particular situation.

Measures are important.

When non-acoustic engineers participate in noise control practice, they need to have a basic understanding of noise emission and propagation characteristics and understand Understand the basic principles of noise control.

In order to promote the development of noise control in the workplace, it is essential to disseminate the information contained in these recommended practices through national standards.

In order to reduce the noise hazards in the workplace, the state has formulated relevant laws and regulations. Generally, such laws and regulations require the adoption of noise control measures to achieve to the lowest reasonable level of noise emission, noise exposure and noise exposure, taking into account.

--- Known available measures;

---The latest level of progress in noise control technology;

--- Processing of noise sources;

---Proper planning, procurement and installation of machinery and equipment.

GB/T 17249 "Recommended design methods for low-noise workplaces containing acoustic machinery" is intended to consist of three parts.

--- Part 1: Noise control strategies. The purpose is to give the basic concepts and basic strategies of noise control;

--- Part 2: Noise control measures. The purpose is to provide basic technical measures for noise control and their evaluation and verification methods;

--- Part 3: Sound propagation and noise prediction in the workplace. The purpose is to give the sound propagation in the workplace and the sound pressure level in the workplace and prediction methods for noise exposure.

This document, together with the other two parts, outlines the aspects to be considered

when implementing noise control in workplaces, indoor environments and in the open air.

These recommendations provide, in a relatively simple manner, a method for all parties involved in workplace noise control and the design of low-noise workplaces.

The basic information needed to facilitate the understanding of the required noise control requirements is provided.

The purpose of the GB/T 17249 series is to bridge the gap between existing noise control literature and the implementation of noise control measures.

The series is suitable for all workplaces, its main functions are.

- Provide simple and concise information on some aspects of noise control in the workplace;
- Serves as a guide to help understand the requirements in standards, directives, textbooks, manuals, reports and other professional technical documents;
- Provide assistance in decision making when evaluating the various available measures.

GB/T 17249 series will be of great importance to factory workers, health and safety supervisors, engineers, managers, planning and purchasing department personnel, construction. However, the above parties need to pay attention to the GB/T 17249 series of recommendations.

Recommendations are not the only requirement for creating a safe workplace.

The impact of noise on health, well-being and human activities is multifaceted. The GB/T 17249 series provides noise control strategies and measures.

The purpose of this document is to provide guidance on the implementation of noise control measures to reduce the impact of noise on people in the workplace. The assessment of the impact of noise on people is discussed elsewhere.

Low-noise workplace design with acoustic machinery Recommended practices Part 1:
Noise control strategies

1 Scope

This document describes the basic concepts of noise control (noise, noise emission, noise exposure, noise reduction), and provides a comprehensive and Planned noise control strategies for the workplace.

This document applies to all types of workplaces and all types of sound sources in the workplace (including human activities).

This document includes important strategies to adopt when purchasing new machinery or equipment.