

ICS 13.110
CCS J 09



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

GB/T 25749.8-2012

**Safety of machinery -- Evaluation of the emission of airborne
hazardous substances -- Part 8: Room method for the
measurement of the pollutant concentration parameter**

Issued on: May 11, 2012

Implemented on: December 1, 2012

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

Table of Contents

Foreword

Introduction

1 Scope

2 normative reference documents

3 terms and definitions

4 principle

Foreword

GB/T 25749 "Assessment of Hazardous Substances in Airborne Airborne Discharge" consists of the following nine parts.

- Part 1. Selection of test methods;
- Part 2. Tracer gas method for measuring emissions of a given pollutant;
- Part 3. Test bench method for measuring the emission rate of a given pollutant;
- Part 4. Tracer method for measuring the efficiency of exhaust system capture;
- Part 5. Test bench method for measuring the quality separation efficiency of air purification systems without conduit exports;
- Part 6. Test bench method for measuring the quality separation efficiency of air purification systems with conduit outlet;
- Part 7. Test bench method for measuring pollutant concentration parameters;
- Part 8. Indoor method for measuring pollutant concentration parameters;

Part 9. Purification Index.

This part is part 8 of GB/T 25749.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part is equivalent to the use of international standards ISO 29042-8..2011 "Mechanical safety assessment of harmful substances in the air emissions Part 8.

Indoor Method for Measuring Contaminant Concentration "(in English).

This part is equivalent to translation ISO 29042-8..2011. For ease of use, this section has made the following editorial changes.

- the terms of the ISO /TC199 work and the relationship with ISO 19042-8 and EN1903-9 were deleted from the introduction

content.

This part of the National Machinery Safety Standardization Technical Committee (SAC/TC208) proposed and centralized.

This part of the drafting unit. Shenzhen City, China Testing Co., Ltd., Nanjing Forestry University Institute of optical and electrical engineering, mechanical science research

General Hospital.

Introduction

The mechanical safety standards are structured as follows.

- Class A standard (basic safety standard), given the basic concepts, design principles and general characteristics applicable to all machinery;

- Class B standards (general safety standards), involving a safety feature in the machinery or a wide range of use of a class of safety devices.

- * Class B1, specific safety features (eg safety distance, surface temperature, noise) standard;

- * Class B2, safety devices (eg hands operated devices, interlocks, pressure sensitive devices, protective devices)

- Class C standards (machine safety standards) that specify a detailed safety requirement for a particular machine or group of machines.

According to GB/T 15706, this part belongs to class B standard.

Class C standards may supplement or modify the terms of this section.

For machines designed and constructed in accordance with Class C standards, if the provisions of Class C standards are inconsistent with Class A or Class B criteria,

Using Class C standards.

Mechanical safety airborne emissions of harmful substances

Evaluation Part 8. Measuring Contaminant Concentration

Parameter of the interior method

1 Scope

This part of GB/T 25749 specifies that the machine in the air is measured when operating the machine in the test room under given conditions

Of the concentration of pollutants in the given concentration of harmful substances. This method is only applicable to the local exhaust ventilation air flow $\geq 500\text{m}^3/\text{h}$

The machine and the machine without air circulation.

Measure the pollutant concentration parameters of the machine and can be used to.

- a) assess the performance of the machine;
- b) assessment of machine improvements;
- c) comparison between groups of machines of the same intended use (this group is defined by function and processing material);
- d) classify the same set of machines according to the pollutant concentration parameters;
- e) Determine the technical level of the machine according to the pollutant concentration parameter.

2 normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article

Pieces. For undated references, the latest edition (including all modifications) applies to this document.

ISO 2602 Statistical analysis of the results of the data Estimated confidence interval
(Statisticalinterpretationoftestresults-

Estimationofthemean-Confidenceinterval)

ISO 12100 Mechanical Safety Design General Risk Assessment and Risk Reduction
(Safetyofmachinery-General

principlesfordesign-Riskassessmentandriskreduction

3 terms and definitions

ISO 12100 and the following terms and definitions apply to this document.

3.1

Indoor Pollutant Concentration Parameters polutantconcentrationparameteroftheroom

P_{cr}

The concentration of a given pollutant measured at a specified location near the machine.

Note. In this section, the measurement point is the position specified around the machine and the pollutant concentration parameter is the average of the measured concentration.

4 principle

The principle of this measurement method is to operate in a test room under controlled conditions with strong local exhaust ventilation ($\geq 500 \text{ m}^3/\text{h}$) and

Measure the contaminant concentration at the specified location (see 5.2). The average concentration represents an indicator of machine emissions, and the standard deviation represents the emissions

Dispersion of an indicator.