

**Acoustics - Noise from shooting ranges - Part 5: Noise management**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 17201-5:2010 sisaldab Euroopa standardi EN ISO 17201-5:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.03.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.02.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 17201-5:2010 consists of the English text of the European standard EN ISO 17201-5:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.03.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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The standard is available from Estonian standardisation organisation.

ICS 17.140.20, 95.020, 97.220.10

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EUROPEAN STANDARD

**EN ISO 17201-5**

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

## Acoustics - Noise from shooting ranges - Part 5: Noise management (ISO 17201-5:2010)

Acoustique - Bruit des stands de tir - Partie 5: Gestion du bruit (ISO 17201-5:2010)

Akustik - Geräusche von Schießplätzen - Teil 5: Lärmmanagement (ISO 17201-5:2010)

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COMITÉ EUROPÉEN DE NORMALISATION  
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## Foreword

This document (EN ISO 17201-5:2010) has been prepared by Technical Committee ISO/TC 43 "Acoustics" in collaboration with Technical Committee CEN/TC 211 "Acoustics" the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2010, and conflicting national standards shall be withdrawn at the latest by August 2010.

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### Endorsement notice

The text of ISO 17201-5:2010 has been approved by CEN as a EN ISO 17201-5:2010 without any modification.

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## Introduction

The initiative to prepare a standard on impulse noise from shooting ranges was taken by the Association of European Manufacturers of Sporting Ammunition (AFEMS), in April 1996 by the submission of a formal proposal to CEN (see doc. CEN N 1085). After consultation in CEN in 1998, CEN/TC 211, *Acoustics*, asked ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise* to prepare ISO 17201 (all parts).

This part of ISO 17201 provides guidance for noise management of shooting activity at shooting ranges. It deals with the control of the noise received outside shooting ranges at specified reception points based either on measured or calculated data.

In general, national or regional environmental authorities specify how sound from shooting ranges should comply with guidelines, rules or regulations made by the relevant authorities. In situations with no official regulations, the management of a shooting range may use the method specified in this part of ISO 17201.

**NOTE** Conflicting national guidelines, rules or regulations can prevent the application of methods described in this part of ISO 17201.

Looking through various regulations used worldwide, many different approaches for noise control are found. In some countries, the long-term equivalent continuous sound pressure level is used to limit sound levels from shooting. In other countries, noise control is managed by limiting the level of one shot or by the difference between the long-term rating level and background sound pressure level, etc. This part of ISO 17201 gives a method for noise management to control the equivalent continuous sound pressure level by managing the number of shots for each combination of weapon type, ammunition type, the locations of firing, and the firing direction that is used in a shooting range. The weighting of the number of shots is related to the sound exposure levels produced by each combination at the reception points. By directly relating the number of shots to the limiting values, management objectives such as minimizing the noise load in the neighbourhood can be met.

# Acoustics — Noise from shooting ranges —

## Part 5: Noise management

### 1 Scope

This part of ISO 17201 gives guidelines for noise management of shooting activity at shooting ranges. The control of the noise received outside shooting ranges at specified reception points based either on measured or calculated sound exposure levels is specified. This part of ISO 17201 can also be used in the planning of new or reconstruction of existing ranges. It is intended to comply with all relevant local rules and regulations which imply a conversion of sound exposure level to other indicators as given in ISO 17201-3.

This part of ISO 17201 applies to weapons with calibres of less than 20 mm or explosive charges of less than 50 g TNT equivalent and pressures of less than 1 kPa at the reception point.

NOTE National or other regulations, which could be more stringent, can apply.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1996-2, *Acoustics — Description, measurement and assessment of environmental noise — Part 2: Determination of environmental noise levels*

ISO 17201-1:2005, *Acoustics — Noise from shooting ranges — Part 1: Determination of muzzle blast by measurement*

ISO 17201-2, *Acoustics — Noise from shooting ranges — Part 2: Estimation of muzzle blast and projectile sound by calculation*

ISO 17201-3, *Acoustics — Noise from shooting ranges — Part 3: Guidelines for sound propagation calculations*

ISO 17201-4, *Acoustics — Noise from shooting ranges — Part 4: Prediction of projectile sound*

ISO/IEC Guide 98-3:2008, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*