PD ISO/TS 15666:2021

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Acoustics — Assessment of noise annoyance by means of social and socio-acoustic surveys

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National foreword

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A list of organizations represented on this committee can be obtained on request to its committee manager.

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TECHNICAL SPECIFICATION

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Second edition
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Acoustics — Assessment of noise annoyance by means of social and socio-acoustic surveys

Acoustique — Évaluation de la gêne causée par le bruit au moyen d'enquêtes sociales et d'enquêtes socio-acoustiques

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Specifications for wording and scaling of questions on annoyance **2**
5 Additional specifications for conducting social and socio-acoustic surveys when assessing noise annoyance **3**
6 Specifications for assessing the degree of annoyance **4**
7 Specifications for reporting core information from social and socio-acoustic surveys **5**
Annex A (informative) **Rationale for wording and scaling of questions on annoyance** **7**
Annex B (informative) **Wording in seventeen languages of questions on annoyance** **13**
Bibliography **18**

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 43, *Acoustics*, Subcommittee SC 1, *Noise*.

This second edition cancels and replaces the first edition (ISO/TS 15666:2003), which has been technically revised.

The main changes compared to the previous edition are as follows:

— A relaxation of the requirement to ask both the 5-point verbal scale and the 11-point numerical scale. Both questions can still be asked but guidance has been provided about the advantages and disadvantages of each scale to aid question choice in situations where only one question will be asked.

— Clarification regarding assumptions that the question covers a 24 h period (day, evening and night) and the indoor and outdoor home environment.

— Additional guidance has been added in Clause 6 describing the conventional cut-offs to define “highly” annoyed” for the 5-point verbal scale and the 11-point numerical scale, to enable comparisons between different surveys and contexts.

— Updated references.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Many countries have already developed regulations concerning the acceptability of environmental noise exposure, while others are likely to do so in the future. Such regulations often take into account relationships between noise exposure and noise-induced annoyance.

Measurement of environmental noise has been standardized. For example, ISO 1996 (all parts) contains detailed specifications about basic quantities and procedures, about acquisition of (noise) data, and about the application of these data to set noise limits.

The intent of this document is to provide specifications for the assessment of noise annoyance by social and socio-acoustic surveys. When these specifications are met, the statistically relevant possibilities of comparing and pooling survey results will be increased, thus offering more and better quality information for use by environmental policy makers.

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Acoustics — Assessment of noise annoyance by means of social and socio-acoustic surveys

1 Scope

This document provides specifications for socio-acoustic surveys and social surveys which include questions on noise effects (referred to hereafter as "social surveys"). It includes questions to be asked, response scales, key aspects of conducting the survey, and reporting the results.

It is recognized that specific requirements and protocols of some social studies may not permit the use of some or all of the present specifications. This document in no way lessens the merit, value or validity of such research studies.

The scope of this document is restricted to surveys conducted to obtain information about noise annoyance "at home". Surveys conducted to obtain information about noise annoyance in other situations, such as recreational areas, work environments and inside vehicles, are not included.

This document concerns only the questions on noise annoyance used in a social survey and the most important additional specifications needed to accomplish a high level of comparability with other studies. Other elements which are required to provide high-quality social surveys, but which are not specific for social surveys on noise (such as sampling methods), can be found in textbooks (see References [1] and [2]).

Conformity with the recommendations of this document does not guarantee the collection of accurate, precise or reliable information about the prevalence of noise-induced annoyance and/or its relationship to noise exposure. Other aspects of study design, as well as uncertainties of estimation and measurement of noise exposure, can influence the interpretability of survey findings to a great extent.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1996-1, *Acoustics — Description, measurement and assessment of environmental noise — Part 1: Basic quantities and assessment procedures*

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

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