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SOUTH AFRICAN NATIONAL STANDARD

The measurement and assessment of occupational noise for hearing conservation purposes

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Table of changes

Change No.	Date	Scope
Amdt 1	2012	Amended to move reference to South African legislation in the text to the foreword, to update the table of contents, to update the introductory paragraph to the clause on normative references, to update referenced documents, to add a definition for "otorhinolaryngologist", to renumber the remaining definitions, to add a note to a definition, to change and to delete certain definitions, to change the requirements for baseline audiometry and periodic screening audiometry, and to change requirements in the annex on reports.
Amdt 2	2013	Amended to change requirements for baseline audiometry, and to change the title and text of the table on frequency of contributions to the PLH (table 1).

Acknowledgement

The SABS Standards Division wishes to acknowledge the valuable services rendered by the Department of Labour and the Department of Mining and Resources.

Foreword

This South African standard was approved by National Committee SABS/TC 76, *Acoustics, electro-acoustics and vibration*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in July 2013.

This document supersedes SANS 10083:2012 (edition 5.1).

A vertical line in the margin shows where the text has been technically modified by amendment No. 2.

Where reference is made to SANS 61672, SANS 656 and SANS 658 are also applicable in the case of older models of calibration equipment. **Amdt 1**

This document is referenced in the Mine Health and Safety Act, 1996 (Act No. 29 of 1996), the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), and the Machinery and Occupational Safety Act, 1983 (Act No. 6 of 1983).

Reference is made in 3.1.4 and 3.1.7 to the "relevant national body". In South Africa this means the Health Professions Council of South Africa. **Amdt 1**

Reference is made in 3.1.7(e) to the "relevant national legislation". In South Africa this means the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995). **Amdt 1**

Reference is made in 3.1.7(e) to the "relevant national authority" and the "relevant national body". In South Africa this means the South African Qualification Authority and the South African Society for Occupational Health Nursing (SASOHN), respectively. **Amdt 1**

Reference is made in 8.2.1(a) and 16.3(a) to the "relevant national legislation". In South Africa this means the applicable of the following:

- a) the National Qualifications Framework Act, 2008 (Act No. 67 of 2008); and
- b) the Measuring Units and National Measuring Standards Act, 2006 (Act No. 18 of 2006).

Amdt 1

In South Africa, the relevant legislation mentioned in this standard refers to the latest editions of either the Circular Instruction 171 or the Noise Induced Hearing Loss Regulations.

In South Africa, the relevant inspection authority mentioned in this standard means an inspection authority approved by the Department of Labour for the monitoring of noise in the workplace.

Annexes A, B and C form an integral part of this document. Annexes D and E are for information only.

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The measurement and assessment of occupational noise for hearing conservation purposes

1 Scope

1.1 This standard covers the measurement and rating of a working environment for hearing conservation purposes, the physical demarcation of an area where hearing conservation measures have to be applied, and medical surveillance.

The rating level determined in terms of this standard is independent of personal exposure.

1.2 The standard also covers recommendations regarding suitable hearing conservation measures and programmes.

NOTE 1 Because the susceptibility of individuals to noise varies, the limits laid down in clause 4 will not always ensure protection of the hearing of all individuals.

NOTE 2 The information to be supplied in reports is specified in annex A.

NOTE 3 The mandatory symbolic sign for hearing protection to be displayed at the boundaries of noise zones is given in annex B.

NOTE 4 Audiometric tests for employees exposed to gunshots or other explosive events are covered in annex C.

NOTE 5 Personal noise exposure is covered in annex D.

NOTE 6 A procedure for the calculation of the percentage loss of hearing (PLH), and disablement is given in annex E.

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. Information on currently valid national and international standards can be obtained from the SABS Standards Division. **Amdt 1**

IEC 60645-1, *Electroacoustics – Audiometric equipment – Part 1: Equipment for pure-tone audiometry.*

SANS 1186-1, *Symbolic safety signs – Part 1: Standard signs and general requirements.*

SANS 1451-1, *Hearing protectors – Part 1: Ear-muffs.*

SANS 1451-2, *Hearing protectors – Part 2: Ear-plugs.*

SANS 1451-3, *Hearing protectors – Part 3: Ear-muffs attached to an industrial safety helmet.*