DEPARTMENT OF EMPLOYMENT AND LABOUR

NO. 5953 **6 March 2025**

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993)

NOISE EXPOSURE REGULATIONS, 2024

The Minister of Employment and Labour has, under section 43(1)(*a*) and (*b*) of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), after consultation with the Advisory Council for Occupational Health and Safety, made the regulations in the Schedule.

MS N METH, MP

MINISTER OF EMPLOYMENT AND LABOUR

DATE: 3 February 2025

SCHEDULE

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1. Definitions

In these Regulations, word or expression to which a meaning has been assigned in the Occupational Health and Safety Act.1993 (Act No. 85 of 1993), bears the meaning so assigned and, unless the context otherwise indicates—

"approved noise inspection authority" means an inspection authority approved by the Chief Inspector of the Department of Employment and Labour for the monitoring of noise in the workplace;

"Chief Director: Provincial Operations" means the provincial director as defined in the General Administrative Regulations, 2003, published as Government Notice R.929 in *Gazette* No. 25129 of 25 June 2003;

"competent person: audiometric testing" means—

(a) for screening audiometry;

(i) a person registered in terms of the Health Professions Act, 1974 (Act No. 56 of 1974), with the Health Professions Council of South Africa in any of the following categories:

(aa) ENT (ear, nose and throat specialist);

(bb) speech therapist; or

(cc) audiologist;

(ii) a person with a valid occupational skills certificate: Occupational Audiometric Screener, obtained from an organisation accredited with the Quality Assurance Body that has been delegated the quality assurance responsibilities for Occupational Audiometric Screener unit standards by the Quality Council for Trades and Occupations (QCTO), established in terms of section 26(1) of the Skills Development Amendment Act, Act No. 37 of 2008, as

amended, and registered with an organisation recognised by the Chief Inspector; and

(b) for diagnostic audiology—

(i) a person registered in terms of the Health Professions Act, 1974 (Act No. 56 of 1974), with the Health Professions Council of South Africa in any of the following categories:

(aa) ENT (ear, nose and throat specialist); or

(bb) audiologist;

"competent person" in relation to noise means a person who—

(a) has, in respect of the work or task to be performed, the required knowledge, training and experience in noise and, where applicable, relevant qualifications specific to or including noise: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2008 (Act No. 67 of 2008), those qualifications and that training must be regarded as the required qualifications and training; and

(b) is familiar with the Act and the applicable regulations made under the Act;

"exposure" means the extent to which a person is exposed to noise at the workplace as determined by the noise exposure risk assessment, and includes potential or accidental exposure, and exposed has a derivative meaning;

"hearing protective device or HPD" means a device with the proven capability of reducing actual noise exposure to either below the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration;

"impulse noise" means sound characterised by brief excursions of sound pressure that exceeds the background noise;

"$L_{Req, 8h}$ or 8-hour rating level" means the rating level normalised to a nominal 8-hour working day and should be A-weighted;

"L_{peak} or peak noise level" means the peak level of the sound pressure wave with no time constant applied and should be C-weighted;

"medical screening" means a risk-based systematic medical assessment of a person or a group of people using a combination of medical history, physical examination and special tests/investigations to detect disease or abnormality;

"noise" means unwanted sound that may cause annoyance, interference with speech or communication and/or hearing impairment;

"noise action level" means the value of the 8-hour rating level at or above 82 dBA for continuous noise and/or the value of the peak noise level at or above 135 dBC for impulse noise at which specified actions or counter measures must be taken;

"noise exposure monitoring" means the systematic process of measuring the magnitude, frequency and duration of exposure to noise;

"noise-rating limit" means the value of the 8-hour rating level at or above 85 dBA for continuous noise and/or peak noise level at or above 137 dBC for impulse noise at which specified actions or counter measures must be taken;

"noise exposure risk assessment" means an assessment and risk categorisation of exposure to noise in the workplace;

"noise technical committee" means a committee established in terms of regulation 16;

"noise zone" means an area, and plant or machinery without a fixed location, where the exposure to noise is—

(a) at or above the noise-rating limit; or

(b) at or above the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration;

"ototoxic chemical agent" means a chemical agent with the potential to cause hearing impairment alone or in combination with noise, even below 85 dBA;

"the Act" means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

"vulnerable employee" means an employee who is at a higher risk of injury, disease or complications caused by exposure to noise;

"whole-body vibration" means mechanical vibration which is transmitted into the body, when seated or standing, through the supporting surface, during a work activity.

2. Scope of application

(1) These Regulations apply to—

(a) any employer or self-employed person at any workplace under their control, where persons are exposed to continuous or impulse noise at or above either the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and or whole-body vibration; and

(b) a designer, manufacturer, importer or supplier of plant or machinery for use at a workplace.

(2) With the exception of regulation 4 (6), the provisions of regulations 4 and 9 shall not apply to a self-employed person.

(3) Where the employer or self-employed person exposes any person to either an ototoxic chemical agent or whole-body vibration, the provisions of the Regulations for Hazardous Chemical Agents and Physical Agents Regulations shall apply.

3. Exposure to noise

(1) Subject to regulations 10 and 11, an employer or self-employed person must ensure that no person entering the workplace under their control will be exposed to noise at

or above the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration.

4. Information, instruction and training

(1) An employer who undertakes work which exposes an employee to noise must consult the relevant health and safety representative or the health and safety committee established for that workplace and inform them of the intention to conduct—

(a) a noise exposure risk assessment;

(b) noise exposure monitoring; and

(c) training contemplated in subregulation (4).

(2) An employer who undertakes work which exposes an employee to noise at or above either the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration must inform the relevant health and safety representative or the health and safety committee established for that workplace of the intention to conduct medical screening and medical surveillance.

(3) An employer must inform the relevant health and safety representative or the health and safety committee for that workplace of the documented outcomes of the—

(a) noise exposure risk assessment;

(b) noise exposure monitoring; and

(c) medical screening and medical surveillance.

(4) Every employer who undertakes work which is likely to expose an employee to noise must, before any exposure, ensure that such employee is comprehensively informed, instructed and trained in both the practical aspects and theoretical knowledge with regard to—

(a) the content and scope of these Regulations;

(b) the potential sources of exposure to noise;

(c) ototoxic chemical agents and whole-body vibration acting synergistically with noise to cause hearing loss;

(d) the potential risks to health and safety caused by exposure to noise;

(e) the differing effects of exposure to noise on men, women, young employees and vulnerable employees, where such difference may exist;

(f) the control measures that are in place to prevent exposure to noise;

(g) the necessity for compliance with noise control measures in all areas, including the correct inspection, use, care, maintenance, limitations and disposal of HPDs;

(h) the precautions to be taken by an employee to protect themself against the adverse effects associated with the exposure;

(i) the reason for and the outcomes of the noise exposure risk assessment, noise exposure monitoring and the necessity for medical screening and medical surveillance;

(j) the noise action level and noise-rating limit for hearing conservation and their meaning;

(k) the procedures for reporting, correcting and replacing defective noise control measures, including HPDs;

(l) any additional matters contemplated in regulations 5 and 9; and

(m) the process to access records of noise exposure risk assessment, noise exposure monitoring and personal medical records.

(5) The employer must ensure that refresher training is conducted at least annually or at more frequent intervals as may be recommended by the health and safety committee or the health and safety representative.

(6) An employer or self-employed person must ensure, as far as is reasonably practicable, that mandataries or persons other than employees who may be affected by noise exposure at the workplace are informed and trained in accordance with subregulation (4).

(7) The training programme contemplated in subregulation (4), (5) and (6) must be conducted by a competent person.

5. Duties of persons who may be exposed to noise

(1) Any person who is or may be exposed to noise at or above either the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration must obey any lawful instruction by the employer or self-employed person or by anyone authorised thereto by the employer or self-employed person, regarding—

(a) the use of measures adopted for noise control;

(b) the immediate reporting of defective, damaged or lost noise control measures to the health and safety representative or the employer;

(c) the use of HPDs;

(d) a prohibition to enter or remain in an area where HPDs are required unless the person is authorised to do so and is wearing the required HPDs;

(e) co-operation with the employer in determining personal exposure, which may include the wearing of a dosimeter;

(f) the reporting for medical screening and medical surveillance; and

(g) information, instruction and training received.

(2) An employee must, where there is a requirement to use HPDs—

(a) inspect, use, wear, store and dispose of the HPDs in accordance with any information, training or lawful instruction given by the employer;

(b) not intentionally misuse or damage the HPDs; and

(c) immediately inform the employer of any damage, defect or any need to clean or replace any of the HPDs.

6. Duties of designers, manufacturers, importers and suppliers

(1) Any designer, manufacturer, importer or supplier must—

(a) as far as is reasonably practicable, ensure that plant or machinery are designed and manufactured to minimise the risk of exposure to noise when properly used;

(b) as far as is reasonably practicable, supply plant or machinery that can be transported, received, stored and handled in a manner that minimises the risk of exposure to noise;

(c) as far as is reasonably practicable, install plant or machinery in a manner that minimises the risk of exposure to noise when properly used; and

(d) provide the employer or user with—

(i) noise and vibration emission data for the plant or machinery to be supplied;

(ii) information, instruction and training as deemed necessary to minimise the risk of exposure to noise during the use of plant or machinery; and

(iii) information on the appropriate maintenance of plant or machinery to ensure safe operation and use.

7. Noise exposure risk assessment

(1) An employer or self-employed person must, in respect of a workplace under their control, cause the noise exposure risk assessment to be done—

(a) as far as is reasonably practicable, before exposure to noise;

(b) thereafter at intervals not exceeding 24-months; and

(c) by a competent person.

(2) When making the noise exposure risk assessment contemplated in subregulation (1), an employer or self-employed person must take into account at least the following—

(a) the noise sources to which a person may be exposed;

(b) the adverse health effects that the exposure to noise may have on men, women, young employees, vulnerable employees and other persons, where applicable;

(c) the extent to which a person may be exposed;

(d) the nature of the work process and any reasonable deterioration in or failure of any control measures;

(e) the previous noise exposure risk assessments, including—

(i) the results of previous approved noise inspection authority noise exposure monitoring reports; and

(ii) the outcomes of the hearing loss trend analysis;

(f) the presence and extent of exposure to ototoxic chemical agents; and

(g) in the case of the exposure to whole-body vibration, whether the exposure exceeds the action level for whole-body vibration set out in the Physical Agents Regulations.

(3) An employer or self-employed person must, in terms of the noise exposure risk assessment—

(a) consider the recommendations identified by a competent person in the noise exposure risk assessment; and

(b) develop a documented action plan for the implementation of the recommended interventions.

(4) An employer or self-employed person must forthwith review a noise exposure risk assessment made in accordance with subregulation (1) if—

(a) there is reason to believe that such noise exposure risk assessment is no longer valid;

(b) control measures are no longer efficient;

(c) technological or scientific advances allow for more efficient control methods;

(d) there has been a change in—

(i) work methods;

(ii) plant and machinery;

(iii) the type of work carried out; or

(iv) control measures;

(e) an incident occurred; or

(f) the medical surveillance reveals an adverse health effect, where noise exposure is identified as a contributing factor.

(5) The review of the noise exposure risk assessment contemplated in subregulation (4) must be carried out in accordance with subregulations (1)*(c)*, (2) and (3).

8. Noise exposure monitoring

(1) The employer or self-employed person must ensure that a noise exposure monitoring programme is implemented where the noise exposure risk assessment or a review of such assessment indicates that any employee may be exposed to noise at or above either the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration.

(2) The noise exposure monitoring programme contemplated in subregulation (1) must be—

(a) carried out in accordance with the provisions of these Regulations;

(b) carried out by an approved noise inspection authority;

(c) representative of an employee's exposure to noise, in accordance with subregulation (3); and

(d) carried out at least every 24-months: Provided that an inspector may direct an employer, in writing, to re-conduct the exposure monitoring or part thereof.

(3) In order to comply with subregulation (2)*(c)*, an employer must ensure that—

(a) area noise exposure monitoring is conducted as contemplated in SANS 10083—

(i) where a number of employees work in an area of approximately equal noise level; and

(ii) where an employee is working at an approximately fixed location relative to the noise source;

(b) personal dosimetry monitoring is conducted as contemplated in SANS 10083 for employees who do not have a fixed workplace; and

(c) peak noise levels are monitored where the noise exposure risk assessment determines that employees may be exposed to impulse noise.

(4) The employer or self-employed person must, in terms of the noise exposure monitoring report—

(a) consider the recommendations identified by approved noise inspection authority in the noise exposure monitoring report; and

(b) develop a documented action plan for the implementation of the recommended interventions.

9. Medical screening and medical surveillance

(1) The employer must establish a documented medical screening programme—

(a) where any employee may be exposed to noise at or above either the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration; or

(b) for a vulnerable employee, in which case the employer must obtain the opinion of an occupational medicine practitioner to determine whether it is necessary to conduct medical screening.

(2) In the case where the employer has to conduct medical screening as contemplated in subregulation (1), the occupational medicine practitioner must consider if—

(a) an employee has a health condition that makes the employee vulnerable to noise;

(b) an employee has a health condition that impacts the proper use of HPDs;

(c) there is an identifiable occupational disease or adverse health effect related to noise;

(d) there is a reasonable likelihood that the occupational disease or adverse health effect may occur under the particular exposure conditions of their work; and

(e) there are valid techniques to diagnose indications of the occupational disease or adverse health effect, as far as is reasonably practicable.

(3) Where the need for medical screening as contemplated in subregulation (1) has been determined as necessary by the occupational medicine practitioner, the occupational medicine practitioner must specify requirements for medical screening, including—

(a) an evaluation of an employee's medical, occupational and exposure history;

(b) the appropriate clinical examination and medical tests; and

(c) the intervals at which medical screening must be conducted, appropriate to the health risks and health status of the employee.

(4) The employer must ensure that medical screening contemplated in subregulation (1) is—

(a) carried out by an occupational health practitioner; and

(b) includes—

(i) an initial medical screening, as far as reasonably practicable, immediately before an employee commences employment; and

(ii) subsequently, periodic medical screening at intervals recommended by the occupational medicine practitioner, but not

exceeding 24-months.

(5) After concluding medical screening, the occupational health practitioner must ensure that the employer is informed, in writing, of the outcome of an employee's health evaluation if the outcome was normal.

(6) The employer must implement audiometry on—

(a) any employee who may be exposed to noise at or above either the noise-rating limit or the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration; or

(b) a vulnerable employee.

(7) The audiometry contemplated in subregulation (6) must be—

(a) according to the Code of Practice for Audiometry; and

(b) conducted by a competent person: audiometric testing.

(8) The occupational medicine practitioner must notify the employer in writing by means of a medical certificate of fitness, and inform the employee accordingly, if—

(a) an employee has a medical condition which—

(i) prevents the wearing of hearing protective devices;

(ii) is likely to be aggravated by the exposures at that workplace; or

(b) the medical screening identifies an adverse health effect caused by exposure to noise at that workplace.

(9) The employer must ensure that an exit medical screening is carried out by an occupational health practitioner on termination of an employee's employment: Provided that the most recent medical screening conducted within 6-months prior to the date of termination of employment shall be deemed to have fulfilled the requirements of an exit medical screening.

(10) With respect to the medical certificate of fitness contemplated in subregulation (8), the certificate must indicate at least—

(a) the recommendations pertinent to an employee's fitness to perform the inherent requirements of the job;

(b) the presence of an occupational disease, without including confidential medical information;

(c) if any restrictions or conditions apply to any specified duties performed by the employee; and

(d) the period for which any restrictions or conditions, as applicable, should be applied.

(11) The employer must, as far as is reasonably practicable—

(a) accommodate the conditions or restrictions recommended; and

(b) only permit an employee who has been medically certified for restricted duties to return to normal duties if the employee has been certified fit for those duties by an occupational medicine practitioner.

(12) The employer must establish, implement and maintain a documented system of medical surveillance where medical screening has been determined necessary.

(13) The medical surveillance as contemplated in subregulation (12) must—

(a) take into account the outcomes of the medical screening as contemplated in subregulation (2);

(b) be overseen by an occupational medicine practitioner; and

(c) at least—

(i) include an analysis of the screening results over time; and

(ii) use the results of subregulation (2) to identify the need for targeted exposure prevention in the workplace.

(14) The employer must ensure that an employee provides written informed consent for inclusion in the—

(a) medical screening; and

(b) medical surveillance programme.

(15) An employee may appeal any finding of an occupational medicine practitioner stipulated in the medical certificate of fitness to the Chief Inspector in writing within 60-days of receiving the certificate.

10. Prevention or control of exposure to noise

(1) An employer or self-employed person must ensure that the exposure of a person to noise is eliminated, where reasonably practicable.

(2) Where the provision of subregulation (1) is not reasonably practicable, an employer or self-employed person must, as far as is reasonably practicable, reduce noise exposure to levels below the limits referred to in regulation 2(1)*(a)* by implementing a combination of the hierarchy of noise control measures, including, but not limited to—

(a) engineering control measures to eliminate or reduce noise at its source, or the modification of the routes by which noise reaches workplaces;

(b) keeping plant and machinery which generates noise in good working order or repaired or replaced when defective; and

(c) administrative control measures to limit the number of persons exposed and the duration of exposure.

(3) The employer must ensure that an employee who is exposed to noise receives information, instruction and training with regard to the inspection and correct use of control measures and reporting of failures of control measures implemented in subregulation (2).

11. Noise zone

(1) The employer or self-employed person must ensure that any workplace or part of such workplace is designated and clearly demarcated as a noise zone where the noise level is at or above—

(a) the noise-rating limit; or

(b) the noise action level, and there is concomitant exposure to—

(i) ototoxic chemical agents; and/or

(ii) whole-body vibration that exceeds the action level set in the Physical Agents Regulations.

(2) The employer or self-employed person must designate and clearly demarcate any plant and machinery that does not have a fixed location as a noise zone where the noise level generated is at or above—

(a) the noise-rating limit; or

(b) the noise action level, and there is concomitant exposure to—

(i) ototoxic chemical agents; and/or

(ii) whole-body vibration that exceeds the action level set in the Physical Agents Regulations.

(3) The employer must not allow any person to enter or remain in a noise zone unless effective HPDs are worn correctly.

12. Hearing protective devices

(1) Where it is not reasonably practicable to ensure that the exposure of an employee to noise is either eliminated or controlled, the employer must provide the employee with suitable HPDs.

(2) Where HPDs are provided, an employer must ensure that HPDs—

(a) reduce exposure to noise to below the—

(i) noise-rating limit; or

(ii) noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration;

(b) are correctly selected, fitted and properly used, taking into consideration—

(i) the nature and characteristics of the noise as contemplated in subregulation (2)*(a)*;

(ii) the type of work to be done;

(iii) the physical effort required to do the work;

(iv) the length of time it will have to be worn;

(v) the requirements in relation to the work for visibility, comfort and employee communication;

(vi) compatibility with any other personal protective equipment that may be needed; and

(vii) any recommendations made by the occupational health practitioner;

(c) are kept in good condition and efficient working order; and

(d) are readily available to exposed persons.

(3) The employer must—

(a) ensure reusable HPDs are kept in hygienic condition and efficient working order;

(b) provide separate containers or storage facilities for HPDs when not in use; and

(c) ensure that all HPDs not in use, are stored only in the place provided for it.

(4) Subregulations (1), (2) and (3) also apply to persons other than employees who may be exposed to noise.

13. Maintenance of control measures

(1) Every employer or self-employed person must ensure that any control measure contemplated in regulation 10 is—

(a) fully and properly used;

(b) maintained in an efficient state and in good working order; and

(c) in good repair and clean condition.

14. Records

(1) The employer or self-employed person must—

(a) keep record of—

(i) training;

(ii) noise exposure risk assessment and action plan;

(iii) noise exposure monitoring and action plan;

(iv) medical screening and medical surveillance records; and

(v) maintenance of control measures;

(b) keep records, as contemplated in subregulation (1)*(a)* for 40-years;

(c) make the records contemplated in regulations 4, 7, 8 and 13 available for inspection by an inspector and relevant health and safety representative or health and safety committee; and

(d) make the records contemplated in regulation 9 available to any person, subject to formal written consent of the employee.

(2) If the employer or self-employed person ceases activities, the employer or self-employed person must inform the relevant Chief Director: Provincial Operations of—

(a) where the records listed in subregulation 1*(a)* shall be kept; and

(b) how those records shall be accessed when required.

15. Code of practice

(1) The Chief Inspector may, in consultation with the Noise Technical Committee, develop or review approved codes of practice relevant to these Regulations in order to guide and regulate exposure to noise in the workplace.

16. Noise technical committee

(1) The Council may, after consultation with the Minister, establish a noise technical committee which must consist of—

(a) a chairperson designated by the Chief Inspector from the employees of the Department of Employment and Labour;

(b) one person designated by the Chief Inspector from the employees of the Department of Employment and Labour;

(c) three persons designated by employers' organisations to represent the employers;

(d) three persons designated by employees' organisations to represent the federation of unions;

(e) two persons to represent professional bodies recognised by the Chief Inspector;

(f) one person representing a higher educational institution;

(g) one person representing audiology;

(h) one person representing occupational medicine; and

(i) persons who are competent in respect of the matters to be dealt with by the noise technical committee who have been co-opted by the committee with the authorisation of the Council.

(2) The Council must—

(a) appoint members of the noise technical committee for a period that the Council may determine at the time of the appointment;

(b) after having afforded a member a reasonable opportunity to respond, discharge such a member at any time, for reasons that are fair and just; and

(c) appoint a new member in the place of a member who is discharged in terms of subregulation (2)*(b)*.

(3) The noise technical committee must—

(a) advise the Council on noise related matters, including, but not limited to, codes, standards and training requirements;

(b) make recommendations and submit reports to the Council regarding any matter to which these Regulations apply;

(c) advise the Council regarding any matter referred to the noise technical committee by the Council;

(d) perform any other function for the administration of a provision of these Regulations that may be requested by the Council;

(e) conduct its work in accordance with the instructions and rules of conduct framed by the Council; and

(f) advise the Chief Inspector regarding appeals logged in writing regarding medical certificate of fitness, as contemplated in regulation 9(8).

17. Offences and penalties

Any person who contravenes or fails to comply with any provision of regulations 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14 or 15 is guilty of an offence and liable on conviction to a fine or to imprisonment for a period not exceeding 12-months and, in the case of a continuous offence, to an additional fine of R200 for each day on which the offence continues or to additional imprisonment of one day for each day on which the offence continues: Provided that the period of such additional imprisonment will in no case exceed 90-days.

18. Repeal of regulations

The Noise-Induced Hearing Loss Regulations, 2003, published as Government Notice No. R. 307 of 7 March 2003, will be repealed 18-months after the date of promulgation of the Noise Exposure Regulations.

19. Short title

These Regulations are called the Noise Exposure Regulations, 2024.

employment & labour

Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA

CODE OF PRACTICE FOR AUDIOMETRY

CONTENTS

ACRONYMS AND DEFINITIONS

Acronyms

ABHL:	average binaural hearing loss
dB:	decibel
dBA:	decibel A-weighting
dBC:	decibel C-weighting
IEC:	International Electrotechnical Commission
HPD:	hearing protective device
HTL:	hearing threshold level
MPASPL:	maximum permissible ambient sound pressure levels
NIHL:	noise-induced hearing loss
OHP:	occupational health practitioner
OMP:	occupational medicine practitioner
PLH:	percentage loss of hearing
SANS:	South African National Standard
STS:	standard threshold shift
TC:	technical committee

Definitions

"acoustic environment" means a room, booth or mobile facility in which audiometric tests are conducted;

"audiogramme" means a chart, graph or table indicating the hearing threshold levels (HTLs) of an individual as a function of frequency as determined during the measurement of a person's HTLs;

"audiometer" means an instrument for the measurement of hearing levels that complies with the relevant requirements specified in IEC 60645;

"audiometric test" means the act of measuring an individual's hearing to establish a percentage loss of hearing (PLH) shift and/or standard threshold shift (STS);

"audiometric zero" means the average hearing threshold at 2 000, 3 000 and 4 000 Hz for each ear calculated from baseline;

"audiometry" means the procedure to be followed in testing an individual's hearing for either screening or diagnostic purposes;

"baseline audiometric test" means a one-off test that is conducted in terms of Instruction 171;

"Compensation Commissioner" means the Compensation Commissioner appointed under section 2(1) of the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993);

"competent person: audiometric testing" means–

(a) for screening audiometry–

(i) a person registered in terms of the Health Professions Act, 1974 (Act No. 56 of 1974), with the Health Professions Council of South Africa in any of the following categories:

(aa) ENT (ear, nose and throat specialist);

(bb) speech therapist; or

(cc) audiologist; or

(ii) a person with a valid occupational skills certificate: Occupational Audiometric Screener, obtained from an organisation accredited with the Quality Assurance Body that has been delegated the quality assurance responsibilities for Occupational Audiometric Screener unit standards by the Quality Council for Trades and Occupations (QCTO), established in terms of section 26(1) of the Skills Development Amendment Act, Act No. 37 of 2008, as amended, and registered with an organisation recognised by the Chief Inspector; and

(b) for diagnostic audiology–

(i) a person registered in terms of the Health Professions Act, 1974 (Act No. 56 of 1974), with the Health Professions Council of South Africa in any of the following categories:

(aa) ENT (ear, nose and throat specialist); or

(bb) an audiologist;

"competent person" in relation to noise, means a person who–

(a) has, in respect of the work or task to be performed, the required knowledge, training and experience in noise and, where applicable, relevant qualifications specific to or including noise: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualifications Framework Act, 2008 (Act No. 67 of 2008), those qualifications and that training must be regarded as the required qualifications and training; and

(b) is familiar with the Act and the applicable regulations made under the Act;

"diagnostic audiology" means an advanced assessment of hearing and hearing loss conducted by an audiologist or ENT specialist;

"entry audiometric test" means a one-off test in terms of Instruction 171 that is conducted on vulnerable employees or employees employed in a noise zone;

"exit audiometric test" means a one-off test in terms of Instruction 171 that is conducted on vulnerable employees or employees employed in a noise zone at the time of termination of employment in a noise zone;

"IEC 60645-1:2017" means the Electroacoustics – Audiometric equipment – Part 1: Equipment for pure-tone and speech audiometry;

"initial audiometric test" means a one-off test in terms of Instruction 171 that is conducted on vulnerable employees or employees employed in a noise zone, who have not had a baseline or entry audiometric test;

"Instruction No. 171" means the Compensation Commissioner's Circular Instruction 171 and Supplement entitled The Determination of Permanent Disablement Resulting from Hearing Loss Caused by Exposure to Excessive Noise and Trauma;

"noise zone" means an area, and plant or machinery without a fixed location, where the noise is–

(c) at or above the noise-rating limit; or

(d) at or above the noise action level where there is concomitant exposure to ototoxic chemical agents and/or whole-body vibration;

"percentage loss of hearing or PLH" means percentage loss of hearing calculated on every audiogramme as per Instruction 171;

"percentage loss of hearing shift or PLH shift" means the difference between the current PLH and the baseline PLH and is used to determine the need for compensation for noise-induced hearing loss (NIHL);

"periodic audiometric test" means a test in terms of Instruction 171 that is conducted on vulnerable employees or employees employed in a noise zone at stipulated intervals;

"SANS 10154" means the South African National Standard for calibration of pure-tone audiometers;

"SANS 10182" means the South African National Standard for the measurement and assessment of acoustic environments for audiometric tests;

"screening audiometric tests" means audiometric tests, conducted by a competent person: audiometric testing, to establish baseline, entry, initial, periodic and exit audiogrammes;

"standard threshold shift or STS" means an average change in hearing of 10 dB or more at the frequencies of 2 000, 3 000 and 4 000 Hz in one or both ears, as compared to the employee's audiometric zero.

1. INTRODUCTION

The Minister's Advisory Council for Occupational Health and Safety granted approval from the establishment of a technical committee (TC) to review the Noise-Induced Hearing Loss Regulations of 2003. The TC is constituted of members of organised labour, organised business, specialists in the field of occupational health and safety and the Department of Employment and Labour.

Due to the complex nature of medical screening and medical surveillance with regard to assessing employees' exposure to occupational noise and the resultant effects, a decision was taken by the TC to produce a code of practice for audiometry, incorporated under the new Noise Exposure Regulations. The Code of Practice for Audiometry is a move from a reactive approach to addressing occupational hearing loss to a proactive approach that incorporates all requirements of medical screening and medical surveillance, particularly audiometric testing, in one document.

2. OBJECTIVES OF THE CODE

The objective of the Department of Employment and Labour's Code of Practice for Audiometry in respect of the Noise Exposure Regulations is to–

(a) assist employers with the development and implementation of a medical screening and medical surveillance programme;
(b) detect early NIHL; and
(c) prevent further hearing loss.

3. APPLICATION OF THE CODE

This Code of Practice applies to all employers and employees as provided for in the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) (the OHS Act), and the Noise Exposure Regulations promulgated under section 43 of the OHSA. The Code is incorporated into the Nose Exposure Regulations of 2024 through regulation 15 of the said regulations.

The scope of the Code of Practice for Audiometry will be aligned with the scope of application of the Noise Exposure Regulations, 2024.

4. MEDICAL SCREENING AND MEDICAL SURVEILLANCE

4.1 An employer is required to establish, implement and maintain a documented system of medical surveillance in terms of regulation 9 of the Noise Exposure Regulations.

4.2 Medical surveillance with respect to noise exposure is a planned, ongoing programme of medical tests and examinations, which includes audiometry.

5. AUDIOMETRY

5.1 Audiometry is the procedure to be followed in testing an individual's hearing for either screening or diagnostic purposes, which consists of establishing and managing the following-

(a) audiometer;

(b) acoustic environment;
(c) employee factors;
(d) method; and
(e) audiogramme report.

5.2 Audiometric testing must be conducted by a competent person: audiometric testing as defined in this Code.

6. AUDIOMETER

Audiometric equipment is classified as screening or diagnostic equipment and ranges from type 1 to type 4.

6.1 Screening Audiometric Equipment

6.1.1 At least a type 4 audiometer is used for obtaining hearing threshold limits for baseline, entry, initial, periodic and exit audiometric tests.

6.1.2 A type 4 audiometer, specified in IEC 60645, must be used for pure-tone air-conduction measurements of hearing thresholds at the frequencies: 500, 1 000, 2 000, 3 000, 4 000, 6 000 and 8 000 Hz.

6.1.3 The type 4 audiometer specified in IEC 60645 provides for measuring amplitude from at least -10 dB to 90 dB.

6.2 Diagnostic Audiology Equipment

6.2.1 At least a type 3 audiometer is used for obtaining hearing threshold limits for the batch of diagnostic audiology tests.

6.2.2 A type 3 audiometer specified in IEC 60645 must be used to measure the hearing thresholds at the frequencies: 125, 500, 1 000, 2 000, 3 000, 4 000, 6 000 and 8 000 Hz and must include at least the following batch of tests-
(a) otoacoustic emission testing;
(b) pure-tone air-conduction;
(c) pure-tone bone-conduction;
(d) tympanometry; and
(e) speech discrimination.

6.2.3 The type 3 audiometer specified in IEC 60645 provides for measuring amplitude from at least -10 dB to 90 dB.

7. CALIBRATION OF AUDIOMETER

The audiometer must be calibrated and checked according to the three recognised methods listed below-

(a) electro-acoustic calibration;
(b) biological calibration; and
(c) daily check.

7.1 Electro-acoustic Calibration

7.1.1 The electro-acoustic calibration must be conducted–

(a) before initial use; and
(b) thereafter, at intervals not exceeding 12-months: Provided that where an audiometer is either moved from one acoustic environment to another acoustic environment or the acoustic environment where the audiometer is station is changed, that audiometer must be calibrated at least every 3-months, provided that the biological calibration is conducted after each move, prior to testing.

7.1.2 The electro-acoustic calibration must be conducted–

(a) by a competent person; and
(b) in accordance with SANS 10154.

7.1.3 The competent person must issue a certificate of compliance which must contain the information required in the relevant parts of SANS 10154.

7.1.4 The certificate of compliance may only be issued once any deviations or defects observed have been corrected.

7.1.5 The electro-acoustic calibration must be reconducted when any of the components of the audiometer have been replaced.

7.2 Biological Calibration

7.2.1 The biological calibration must be conducted–

(a) on a weekly basis; or
(b) whenever the audiometer is moved to a new acoustic environment.

7.2.2 The biological calibration must be conducted–

(a) by a competent person: audiometric testing; and
(b) in accordance with SANS 10154.

7.2.3 Documented evidence of the biological calibration must be kept.

7.3 Daily Check

7.3.1 A daily check must be conducted on the day of testing.

7.3.2 The daily check must be conducted by a competent person: audiometric testing and include at least–

(a) presence of valid electro-acoustic and biological calibration evidence; and

(b) verification of the frequencies and decibels to be used, using the monaural pure-tone air-conduction method on at least three of the same frequencies, until the next biological calibration is due.

8. ACOUSTIC ENVIRONMENT

The acoustic environment must comply with the provisions of SANS 10182 with respect to maximum permissible ambient sound pressure levels (MPASPL).

8.1 Certification of Acoustic Environment

8.1.1 Audiometry must not be conducted unless the acoustic environment has been certified in accordance with the requirements of SANS 10182.

8.1.2 The certification must be conducted by a competent person.

8.1.3 The competent person must issue a certificate of compliance for that acoustic environment, which must contain the information required in the relevant parts of SANS 10182.

8.1.4 All acoustic environments must be certified before initial use and thereafter at intervals not exceeding 12-months: Provided that, should there be any change that may affect the ambient noise in the acoustic environment, the certification must be reissued immediately.

8.1.5 The certificate of compliance may only be issued once any deviations or defects observed have been corrected.

8.1.6 An audiometer must not be moved to an acoustic environment that is not certified.

8.1.7 No other medical examinations and tests must be conducted in the acoustic environment during the same time that an audiometric test is being conducted.

9. EMPLOYEE FACTORS

For an employee undergoing audiometry, the following variables need to be identified before obtaining the HTLs, by a competent person: audiometric testing, in respect of–

(a) occupational-acoustic history;
(b) otoscopic examination; and
(c) clear instructions.

9.1 Occupational-acoustic History

9.1.1 The occupational-acoustic history is conducted to verify–

(a) current and previous occupational exposure;
(b) protective measures taken;
(c) previous audiogrammes;
(d) noise-free preparation time for the current test; and
(e) other significant history which can affect hearing: medical history, surgical and trauma history, genetic predisposition and social factors.

9.2 Otoscopic Examination

9.2.1 The otoscopic examination is conducted on an employee before the HTLs are obtained to ensure that the test results are not influenced by conductive components.

9.3 Clear Instructions

9.3.1 The competent person: audiometric testing must ensure that the employee undergoing the audiometry understands the instructions given.

10. METHODS

10.1 To produce accurate and reliable HTLs, the audiometric test must only be conducted if the audiometric test methods applied meet the requirements for–

(a) audiometer;
(b) acoustic environment; and
(c) employee factors.

11. AUDIOGRAMME REPORT

11.1 The minimum information that should appear on the audiogramme report includes–

11.1.1 Demographic information: surname, name, identification number, date of birth, gender;

11.1.2 Occupational information: date of employment, date of termination of employment, employer name, task performed by employee, current noise exposure level, noise-free validation statement, hearing protective devices (HPDs) used;

11.1.3 Calibration: date of electro-acoustic calibration, date of acoustic environment certificate, date of biological calibration;

11.1.4 Audiometric test: date of audiometric test, time of audiometric test, category of audiometric test, date of baseline audiometric test;

11.1.5 Audiometric test results: baseline PLH, audiometric zero, current HTLs, current PLH value, current STS value from audiometric zero, average binaural hearing loss (ABHL), PLH shift from baseline value, results of previous audiometric tests;

11.1.6 Interpretation and case management: interpretation of the results and management of abnormal cases must be based on action criteria determined by the occupational medicine practitioner (OMP); and

11.1.7 Signatures of acknowledgement: employee, competent person: audiometric screening.

11.2 The audiogramme should be depicted in both numerical and graphic format in accordance with IEC 60645.

12. AUDIOMETRIC TESTING

12.1 Screening Audiometric Testing

12.1.1 Screening audiometric testing, including baseline, entry, initial, periodic and exit audiometry, must be conducted on–

(a) all employees who are to be employed in or who are employed in a noise zone; or

(b) vulnerable employees.

12.2 Baseline Audiometry

12.2.1 A baseline audiometric test must be conducted–

(a) on every employee who meets the requirement of 12.1.1; and

(b) before or within 30-days of employment.

12.2.2 The baseline audiometric test in terms of 12.2.1 must establish–

(a) a baseline PLH, which will serve as a reference PLH against which all future PLH shifts will be compared; and

(b) the audiometric zero for the purpose of calculating the STS against which all future STS will be compared.

12.2.3 To be considered valid, the baseline audiometric test must comply with–

(a) reliability criteria; and

(b) validity criteria.

12.2.3.1 Reliability criteria must consist of the following requirements:

(a) audiometer (clause 6);

(b) calibration of audiometer (clause 7);

(c) acoustic environment (clause 8);

(d) employee factors (clause 9);

(e) methods (clause 10); and

(f) audiogramme report (clause 11).

12.2.3.2 Validity criteria as referenced in Instruction 171, Supplement 171,–

(a) consists of two audiogrammes done–

(i) on the same day;

(ii) in the same setting;

(iii) in two different sittings; and

(iv) after at least 16-hours free from any noise exposure without the use of HPDs.

(b) the hearing thresholds in the two audiogrammes for each ear at any frequency from 500 to the 4 000 Hz must not differ by more than 10 dB.

12.2.4 Once a valid baseline audiometric test has been established, the audiogramme with the lowest PLH will be regarded as the baseline for that employee.

12.2.5 Where a screening audiometric test is unable to establish a valid baseline audiometric test, the screening test must be repeated after another interval

of 16-hours free from exposure to noise (without the use of HPD). If the repeat screening test is still unable to establish a valid baseline audiometric test, the employee must be referred to an audiologist to establish a valid baseline audiometric test using appropriate techniques or methodologies as referenced in Instruction 171. This process must be completed, as far as is reasonably practicable, within the 30-day deadline.

12.2.6 Where a valid baseline audiometric test has not been established or is not available for the period 1 May 2001 to 16 November 2003 or for employees employed in a noise zone after November 2003–

(a) the baseline PLH will be considered to be 0%; and

(b) the audiometric zero will be regarded as zero.

12.3 Audiometric zero and Standard Threshold Shift

12.3.1 Audiometric zero and STS are recorded for prevention purposes.

12.3.2 Audiometric zero is determined from an average calculated at 2 000, 3 000 and 4 000 Hz.

12.3.3 The audiometric zero must be used in determining any future deterioration in hearing loss.

12.3.4 Determination of audiometric zero

12.3.4.1 For employees employed after the promulgation of the Noise Exposure Regulations, the audiometric zero shall be established from a valid baseline.

12.3.4.2 For employees employed before the promulgation of the Noise Exposure Regulations, the audiometric zero shall be established from their existing baseline.

12.3.4.3 For any employee for whom a valid baseline is not available, the audiometric zero shall be zero.

12.4 Entry Audiometry

12.4.1 An entry audiometric test must be conducted–

(a) on a new employee who–

(i) meets the requirement of 12.1.1; and

(ii) previously met the requirement of 12.1.1 at a previous employer;

(b) on employees who have a valid baseline or do not have a valid baseline; and

(c) before or within 30-days of employment.

12.4.2 Where reasonably practicable and relevant, a new employee must provide a copy of their baseline audiometric test.

12.4.3 The entry audiometric test must establish–

(a) PLH shifts from baseline;

(b) STS comparison against audiometric zero;

(c) effectiveness of preventive interventions;

(d) the need for reporting in terms of clause 13; and

(e) the need for referral for diagnostic audiology.

12.4.4 To be considered valid, the entry audiometric test must comply with–

(a) reliability criteria; and

(b) validity criteria.

12.4.4.1 Reliability criteria must consist of the following requirements-

(a) audiometer (clause 6);

(b) calibration of audiometer (clause 7);

(c) acoustic environment (clause 8);

(d) employee factors (clause 9);

(e) methods (clause 10); and

(f) audiogramme report (clause 11).

12.4.4.2 Validity criteria as referenced in Instruction 171, Supplement 171,–

(a) consists of two audiogrammes done–

(i) on the same day;

(ii) in the same setting;

(iii) in two different sittings; and

(iv) after at least 16-hours free from any noise exposure without the use of HPDs; and

(b) the hearing thresholds in the two audiogrammes for each ear at any frequency from 500 to 4 000 Hz must not differ by more than 10 dB.

12.4.5 Once a valid entry audiometric test has been conducted, the audiogramme with the lowest PLH will be regarded as the entry audiometric test for that employee.

12.5 Initial Audiometry

12.5.1 An initial audiometric test must be conducted on every employee exposed to noise in terms of 12.1.1 where there is no valid baseline and/or valid entry audiometric test.

12.5.2 An initial audiometric test must be conducted–

(a) on an employee who meets the requirement of 12.1.1; and

(b) within 18-months of the publication of the Noise Exposure Regulations and this Code.

12.5.3 The initial audiometric test must establish–

(a) PLH shifts from baseline;

(b) STS comparison against audiometric zero;

(c) effectiveness of preventive interventions;

(d) the need for reporting in terms of clause 13; and

(e) the need for referral for diagnostic audiology.

12.5.4 To be considered valid, the initial audiometric test must comply with–

(a) reliability criteria; and

(b) validity criteria.

12.5.4.1 Reliability criteria must consist of the following requirements-

(a) audiometer (clause 6);

(b) calibration of audiometer (clause 7);

(c) acoustic environment (clause 8);

(d) employee factors (clause 9);

(e) methods (clause 10); and

(f) audiogramme report (clause 11).

12.5.4.2 Validity criteria as referenced in Instruction 171, Supplement 171–

(a) consist of one audiogramme; and

(b) must be conducted after at least 16-hours free from any noise exposure without the use of HPDs.

12.6 Periodic Audiometry

12.6.1 A periodic audiometric test must be conducted on every employee who meets the requirement of 12.1.1;

12.6.2 The periodic audiometric test must be conducted–

(a) every 12-months for exposures–

(i) at or above 85 dBA but less than 105 dBA; or

(ii) at or above 82 dBA with concomitant exposure to ototoxic chemical agents and/or whole body vibration but less than 105 dBA;

(b) every 6-months for exposures at or above 105 dBA;

(c) every 6-months for exposures at or above 135 dBC; or

(d) at more frequent intervals if recommended by the occupational health practitioner (OHP) based on clinical evidence.

12.6.3 For an employee whose STS has not exceeded 25 dB over a period of 3-years, an OMP may extended the frequency of periodic audiometric test to–

(a) 24-months for employees exposed in terms of 12.6.2 (a); and

(b) 12-months for employees exposed in terms of 12.6.2 (b).

12.6.4 The periodic audiometric test must establish–

(a) PLH shifts from baseline;

(b) STS comparison against audiometric zero;

(c) effectiveness of preventive interventions;

(d) the need for reporting in terms of clause 13; and

(e) the need for referral for diagnostic audiology.

12.6.5 To be considered valid, the periodic audiometric test must comply with–

(a) reliability criteria; and

(b) validity criteria.

12.6.5.1 Reliability criteria must consist of the following requirements-

(a) audiometer (clause 6);

(b) calibration of audiometer (clause 7);

(c) acoustic environment (clause 8);

(d) employee factors (clause 9);

(e) methods (clause 10); and

(f) audiogramme report (clause 11).

12.6.5.2 Validity criteria as referenced in Instruction 171, Supplement 171–

(a) consists of one audiogramme; and

(b) where reasonably practicable, must be conducted after a period of at least 16-hours free from any noise exposure without the use of HPDs: Provided that the correct wearing of HPDs while performing work in a

noise zone prior to the periodic audiometric test must be deemed as meeting the 16-hour period free from noise exposure.

12.7 Diagnostic Audiology

12.7.1 A diagnostic audiometric test must be conducted on all employees exposed to noise in terms of 12.1.1, where–

(a) screening audiometry identifies a PLH shift greater than 10% from baseline;

(b) the hearing loss pattern suggests NIHL; and

(c) screening audiometry identifies an STS shift of 25 dB or more from audiometric zero.

12.7.2 To be considered valid, the diagnostic audiometric test must comply with–

(a) reliability criteria; and

(b) validity criteria.

12.7.2.1 Reliability criteria must consist of the following requirements-

(a) audiometer (clause 6);

(b) calibration of audiometer (clause 7);

(c) acoustic environment (clause 8);

(d) employee factors (clause 9);

(e) methods (clause 10); and

(f) audiogramme report (clause 11).

12.7.2.2 Validity criteria as referenced in Instruction 171, Supplement 171, includes–

(a) a test conducted by an audiologist or ENT specialist;

(b) two sets of the battery of diagnostic audiometric tests;

(c) a period of at least 24-hours free from any noise exposure without the use of HPDs;

(d) a test conducted on the same day; and

(e) two diagnostic audiometric tests that do not differ by more than 10 dB at any frequency used to determine the PLH.

12.7.3 Where, after 3 attempts by the audiologist, it is not possible to obtain a diagnostic audiogramme that meets the validity criteria, the employee must be referred to an ENT specialist, as soon as reasonably practicable, to determine the hearing loss.

12.7.4 Where, after 3 attempts by the ENT specialist, it is not possible to obtain a diagnostic audiogramme that meets the validity criteria, the test must be deferred for a period of 6-months.

12.7.5 The diagnostic audiometric test used to compensate an employee for NIHL must be deemed as that employee's new baseline.

12.8 Exit Audiometry

12.8.1 An exit audiometric test must be conducted on every employee who was exposed to noise in terms of 12.1.1.

12.8.2 The exit audiometric test must be conducted within 30-days prior to or 30-days after date of termination of employment in a noise zone.

12.8.3 A valid audiometric test conducted within 6-months prior to date of termination of employment shall be deemed to have fulfilled the requirements of an exit audiometric test.

12.8.4 The exit audiometric test must establish–

(a) PLH shifts from baseline;
(b) STS comparison against audiometric zero;
(c) effectiveness of preventive interventions;
(d) the need for reporting in terms of clause 13; and
(e) the need for referral for diagnostic audiology.

12.8.5 To be considered valid, the exit audiometric test must comply with–

(a) reliability criteria; and
(b) validity criteria.

12.8.5.1 Reliability criteria must consist of the following requirements-

(a) audiometer (clause 6);
(b) calibration of audiometer (clause 7);
(c) acoustic environment (clause 8);
(d) employee factors (clause 9);
(e) methods (clause 10); and
(f) audiogramme report (clause 11).

12.8.5.2 Validity criteria as referenced in Instruction 171, Supplement 171, includes–

(a) one audiogramme; and
(b) where reasonably practicable, a period of at least 16-hours free from any noise exposure without the use of HPDs: Provided that the correct

wearing of HPDs while performing work in a noise zone prior to the periodic audiometric test must be deemed as meeting the 16-hour period free from noise exposure

13. ACTION CRITERIA AND REPORTING

13.1 The OHP must determine the–

(a) audiometric zero and STS; and

(b) PLH and PLH shift from baseline.

13.2 STS of 10 dB to less than 25 dB

13.2.1 Where a STS of 10 dB to less than 25 dB is reached, the OHP must–

(a) determine the type of hearing loss, such as NIHL and/or other causes of hearing loss;

(b) confirm whether the hearing loss is work-related;

(c) stipulate the frequency of subsequent periodic audiometric tests; and

(d) report the case to the OMP and employer.

13.2.3 The employer must–

(a) conduct an investigation to determine–

(i) the effectiveness of the hierarchy of controls with respect to engineering and administrative controls and HPDs;

(ii) if additional control measures need to be implemented; and

(iii) compliance with correct use of control measures;

(b) ensure that the employee is retested in line with the stipulated frequency of periodic audiometric testing recommended by the OMP;

(c) stipulate the frequency of the retraining of the employee in the use of and compliance with control measures implemented;

(d) inform the health and safety committee and/or the health and safety representative; and

(e) determine whether a review of the hearing conservation programme is warranted.

13.3 STS of 25 dB or more

13.3.1 Where a STS of 25 dB or more is reached, the OHP must ensure that the employee is referred–

(a) to the OMP for further evaluation; and

(b) for diagnostic audiology.

13.3.2 Where diagnostic audiology confirms a STS of 25 dB or more and is work-related, the OMP must–

(a) issue a medical certificate of fitness that stipulates whether the employee is still fit to continue to work in a noise zone or not; and

(b) report the STS to the Chief Inspector of the Department of Employment and Labour.

13.4 PLH shift of 10% or more

13.4.1 Where screening audiometry identifies a PLH shift of 10% or more from baseline or from previously compensated diagnostic PLH, the OHP must ensure that the employee is referred to the OMP for further case management.

13.4.2 The OMP must–

(a) confirm if the hearing loss is noise induced and work-related; and

(b) refer the employee for diagnostic audiology.

13.5 Confirmation of a PLH shift of 10% or more

13.5.1 Where diagnostic audiology confirms a PLH shift of 10% or more from baseline or from previously compensated diagnostic PLH, the OHP must ensure that the employee is referred to the OMP for further evaluation.

13.5.2 The OMP must–

(a) confirm that the hearing loss pattern is commensurate with NIHL;

(b) issue a medical certificate of fitness that stipulates whether the employee is still fit to continue to work in a noise zone or not;

(c) stipulate the frequency of subsequent periodic audiometric tests; and

(d) report the case to–

(i) the employer; and

(ii) the Chief Inspector of the Department of Employment and Labour.

13.5.3 The employer must–

(a) conduct an investigation to determine–

(i) the effectiveness of the hierarchy of controls with respect to engineering and administrative controls and HPDs;

(ii) if additional control measures need to be implemented; and

(iii) compliance with correct use of control measures;

(b) ensure that the employee is retested in line with the stipulated frequency of periodic audiometric testing recommended by the OMP;
(c) stipulate the frequency of the retraining of the employee in the use of and compliance with control measures implemented;
(d) inform the health and safety committee and/or the health and safety representative;
(e) determine whether a review of the hearing conservation programme is warranted; and
(f) report the case to the Compensation Commissioner.

13.6 Date of diagnosis of compensable NIHL

13.6.1 The date of diagnosis of compensable NIHL shall be the date on which the medical practitioner diagnosed the disease for the first time, based on a shift in PLH of 10% or more from–
(a) baseline; or
(b) previously compensated diagnostic PLH.

14. RECORDS

14.1 The employer must keep a record of the following-
(a) all audiometry conducted;
(b) all documents relating to reliability and validity criteria; and
(c) investigations into STS and PLH shifts.

14.2 The employer must ensure that an employee is provided with a copy of baseline and exit audiometric tests upon termination of employment.

employment & labour
Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA

Explanatory Notes to Noise Exposure Regulations 2024

Chief Directorate: Occupational Health and Safety

FOREWORD

The purpose of this document is to provide guidance to all employers, employees and the public alike, who are responsible for or concerned with the control and prevention of exposure to noise in the workplace.

This guide does not replace the Noise Exposure Regulations of 2024. It is intended to give practical insight into the application of the Regulations. It should always be read in conjunction with the Occupational Health and Safety Act of 1993, Act 85 of 1993 as amended, Noise Exposure Regulations and the any other applicable legislation and referenced standards.

CONTENTS

Introduction

The Noise Exposure Regulations speak to a programme approach which should be integrated into existing occupational health and safety programmes. A hearing conservation programme is a documented, systematic process for anticipating, identifying, analysing and controlling exposure to noise through the sub-regulations of the Noise Exposure Regulations. The hearing conservation programme strives to prevent initial occupational hearing loss, preserve and protect remaining hearing, and equip employees and employers with the knowledge of effects of noise on health, controls in place to prevent hearing loss and hearing protection devices necessary to safeguard themselves.

The programme must include at least the role and responsibilities of the following stakeholders; the employer, employees, OHS representatives and committees, suppliers, manufacturers, approved inspection authorities and relevant health professionals. It is important to acknowledge that noise is not addressed in isolation, but in conjunction with other workplace hazards.

The practical benefits of controlling the exposure to noise may have a real and direct impact on productivity and performance. Some of the benefits may include, but not limited to:

- Labour – improved health, well-being and safety of employees.
- Business – improved productivity, efficiency and prevention of occupational incidents and adverse health effects.
- Government – a workplace that is safe and without risk to the health of employees.

Regulation 2: Scope of application

These Regulations apply at any workplace, as defined by the Occupational Health and Safety Act, Act 85 of 1993 as amended (OHS Act), and are intended to protect the health and safety of any person (as prescribed in Sections 8 and 9 of the OHS Act) who may be exposed to noise in the workplace.

Regulation 3: Exposure to noise

The extent of exposure to noise at the workplace, as determined by the noise exposure risk assessment and exposure monitoring report, needs to be adequately controlled.

Regulation 4: Information, instruction and training

The provision of information, instruction and training for any person who may be exposed to noise is essential, in order to assist employers and employees in reducing the exposure to noise. The employer must ensure the employee is knowledgeable about noise, to understand the requirements imposed on them by the Regulations.

Before any instruction and training is provided to any person, the employer should consult with relevant health and safety representatives and or health and safety committee members on aspects of the Regulations, which have an impact on the training programme.

The training must be delivered by a competent person. However, the Noise Exposure Regulations, regulation 4(4) does not stipulate whether training must be provided by an external service provider or not. However, regardless of whether an internal employee or external service provider is used, the requirements of regulation 4(4) still apply. The employer must ensure that they obtain suitable information, which is specific to that workplace, in order to provide effective training.

Information and training must be planned carefully and presented on commencement of employment. Thereafter, the frequency of training should occur at least annually. However, the reoccurrence of training may be made more frequent by the health and safety representatives and or health and safety committee, taking into account aspects of this Regulations, as well as the severity of the risks. The frequency may vary for different sections in a workplace.

All role players who have a responsibility for the implementation of a hearing conservation programme for that workplace, should receive necessary training relating to the identified noise in the workplace.

The scope of training included in the regulation is the minimum content of a training programme and must be specific to the hazards identified and controls implemented at that workplace. However, the employer should provide a suitable training programme that is understandable to all their employees and any other persons exposed. An employer should

also verify that any person that has received training in terms of these Regulations, has understood the training they have received.

The employer would be required to present at least the following portfolio of evidence:

- competence of the person who provided the training,
- attendance of training, and
- training content framework.

Regulation 5: Duties of persons exposure to noise

Employees or any other person exposed to noise at the workplace, have a moral and legal duty to comply with any lawful instruction and procedure (written or oral) given by or on behalf of employers. In addition, employees must comply with the requirements laid down by the OHS Act and other applicable regulations. These instructions and procedures may differ from one workplace to another because workplaces are not identical.

Regulation 6: Duties of designers, manufacturers, importers and suppliers

Designers, manufacturers, importers and suppliers must take account of potential noise exposure in the workplace during the design, implementation and operational phases, so as to contribute to the elimination or mitigation of noise in the workplace.

Designers, manufacturers, importers and suppliers should provide an employer with sufficient information regarding the performance, operation, and safety requirements of plant or machinery and design parameters. This information should be factored into any exposure risk assessment or exposure monitoring or during a review of such, to mitigate risk associated with any noise identified.

Noise exposure needs to be taken into account in all steps of the life cycle of the plant, machinery or workplace. To support the above, the following should be taken into account by the designer, manufacturer, importer and supplier:

- the design, installation, operation, maintenance and decommissioning should be considered;
- employee characteristics, behaviours and duties;

- foreseeable operating conditions including emergencies;
- the interface between the employee and *plant, machinery or workplace;*
- instructions, technical information, training information, warning signs, safe operation and disposal requirements must be provided; and
- where applicable, SANS standards.

Regulation 7: Noise exposure risk assessment

It is the duty of the employer to conduct an exposure risk assessment for all tasks where an employee is exposed to noise. The exposure risk assessment must be carried out by a competent person. A competent person may draw on the expertise of others when conducting the exposure risk assessment.

The exposure risk assessment should include at least the following steps:

- identifying the work process and or task which generate noise
- identifying the employees who are exposed to the noise
- determining the extent of exposure (noise, ototoxic chemical agents or whole-body vibration)
- evaluating control measures
    - existing control measures
    - efficacy of existing control measures
- considering additional control measures
- analysing, evaluating and rating the risk
- implementing recommendations directed at eliminating or mitigating exposure to noise

Regulation 8: Noise exposure monitoring

Noise exposure monitoring is the systematic process of measuring the magnitude, frequency and duration of exposure to noise. Once the exposure monitoring has been completed, the recommendations identified in the exposure monitoring report needs to be considered. Thereafter, an action plan must be drafted to address the identified recommendations, where reasonably practicable.

Regulation 9: Medical screening and medical surveillance

The Noise Exposure Regulations 9 and Code of Practice for Audiometry provide the employer, employee and health and safety professional with the requirements to be implemented for medical screening and medical surveillance. The below information is provided in support of those requirements.

Medical surveillance, i.e. audiometry, is an integral part of a hearing conservation programme. Audiometric testing should be based on the findings of the noise exposure risk assessment. Only vulnerable employees or employees employed into a noise zone should be subjected to audiometric testing.

The employer would be required to present at least the following portfolio of evidence:

- competence of the person who conducted the audiometric test,
- the type of audiometer, appropriate for screening or diagnostic,
- calibration of audiometer, and
- calibration of the acoustic environment.

Regulation 10: Prevention or control of exposure to noise

Exposure to a noise should be mitigated to the lowest reasonably practicable level by implementing a progressive combination of the hierarchy of controls.

The hierarchy of controls is a step-by-step approach to eliminate or mitigate workplace hazards. It ranks controls from the most effective level of protection to the least effective level of protection. When choosing a control method, start from the top of the list below. Assess the feasibility of the first layer of controls (elimination) before moving on to the second layer (engineering controls). Continue this process until you reach the bottom of the list and have identified as many controls as possible to adequately protect the employee from the hazard.

The hierarchy of controls are listed as follows –

1. Elimination: Elimination is the process of removing the hazard from the workplace. It is the most effective way to control a risk because the hazard is no longer present. It

is the preferred way to control a hazard and should be used whenever possible. Examples may include:

- Not introducing noise into the workplace, e.g. lower noise emitting equipment purchasing practices.
- Redesigning the job or task so that noise is eliminated from the workplace.

2. Engineering controls: The objective of engineering controls is to prevent exposure to noise. Engineering controls can be built into the design of a plant, machinery, or process. Engineering controls are a very reliable way to control employee exposures when the controls are designed, used, and maintained properly. Examples of engineering controls are:
   - substitution of the process or plant and machinery
   - enclosures – placing the material or process in a closed system (e.g., enclosed machines, booths, etc.)
   - isolation and or shielding – separating employees from the hazard by distance or the use of barriers
   - sound absorption along the transmission path
   - maintenance of plant and machinery
3. Administrative controls: Administrative controls involve developing procedures to ensure the work is conducted in a way that minimizes the hazard and exposure. Administrative controls are ranked lower and have more limitations than elimination and engineering controls because this method does not necessarily eliminate or mitigate the hazard from the workplace. Administrative controls should be used in combination with other control measures where possible.

   Examples of administrative control include:
   - developing or changing policies, implementing or improving training and education, and developing or enhancing work practices and procedures, such as -
     - using job-rotation schedules or a work-rest schedule that limit the amount of time an employee is exposed to noise.
     - implementing a preventative maintenance programme to keep plant and machinery in proper working order.
     - scheduling maintenance and other high exposure operations for times when minimal employees are present (such as evenings, weekends).
     - restricting access to a work area.
     - restricting the task to only those competent or qualified to perform the work.
     - using signs to demarcate noise zones.

Regulation 11: Noise zone

The signage used to demarcate a noise zone, should be-

- placed in a location which would make the signage clearly visible
- clearly legible

The employer or self-employed person should consider any relevant standards for signage.

Regulation 12: Hearing protective devices

Hearing Protective Devices (HPD) refers to anything employees wear to help protect them from exposure to noise. HPDs should be used as a complementary control measure, in addition to elimination, engineering, or administrative controls.

HPDs limits exposure to the harmful effects of a hazard but only if the PPE is worn and used correctly. It is important that there is consultation at the workplace in the fitting and selection of assigned HPDs , to ensure that the HPD is fit for use.

Employers should obtain written confirmation from the manufacturers, importer or supplier, that the chosen HPDs provide the correct attenuation, to reduce the exposure to noise to below the legislated limits.

Regulation 13: Maintenance of control measures

The employer should implement a planned maintenance programme for all control measures implemented to eliminate or mitigate the exposure to noise.

The evaluation of the control measures must be done through inspections and tests, analysis of incident reports, medical surveillance reports and exposure monitoring reports. Recommendations to any identified or reported deficiency in the control measures, need to be implemented to make sure that the control measure is working effectively.

The noise exposure risk assessment must be updated to reflect any changes made to a control measure for noise exposure.

Regulation 14: Records

Well-kept records are documented information which may provide input to the exposure risk assessment process. The records may provide documented proof between the exposure to noise and adverse health effects caused by the resultant exposure, as well as what control measures were implemented to eliminate or mitigate exposure.

With regard to access to medical surveillance records, the medical surveillance records imply-

- audiometric tests' results (screening and diagnostic)
- audiometric questionnaires
- ENT reports (where relevant)
- any other report relating to a noise exposure and NIHL diagnosis

The causal relationship between exposure to noise and diagnosis, may occur over a period of time, hence necessitating the long period of retention of records.

The Regulations does not specify the format on how records should be stored, i.e. electronically or hardcopy. Whichever method of storage the employer choses to use, the records should be accessible and readable to the person accessing the records. The records should also have controlled access, taking into account protection of confidential employee information.