

Demonstrate knowledge of hearing conservation in the workplace

Level 3

Credits 3

Purpose People credited with this unit standard are able to demonstrate knowledge of: the mechanism of hearing, and the causes of hearing impairment; how sound intensity is measured, the hearing comfort zone, and the effects of noise on the hearing mechanism; types of, and the benefits of using, hearing protection equipment; and workplace hearing protection programme requirements.

Subfield Occupational Health and Safety

Domain Occupational Health and Safety Practice

Status Registered

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Accreditation Evaluation of documentation by NZQA and industry.

Standard setting body (SSB) New Zealand Industry Training Organisation – Industrial Health and Safety Advisory Group

Accreditation and Moderation Action Plan (AMAP) reference 0171

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

Definitions

Organisational requirements refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements may include but are not limited to – site specific requirements, company quality management requirements, approved codes of practice and guidelines, and legislative requirements.

Legislative requirements include but are not limited to compliance with – Health and Safety in Employment (HSE) Act 1992 and Health and Safety in Employment (HSE) Regulations 1995, Resource Management Act 1991, local body regulations, Approved Codes of Practice created under the primary Act or related guidelines.

Hearing comfort zone refers to acceptable noise level for prolonged exposure.
Types of hearing impairment refers to temporary and/or permanent threshold shift.

Elements and performance criteria

Element 1

Demonstrate knowledge of the mechanism of hearing, and the causes of hearing impairment.

Performance criteria

- 1.1 The hearing mechanism is explained in terms of function and structure.
- Range includes but is not limited to – the outer ear as a sound receiver, the middle ear (eardrum), the inner ear membranes, hair cells.
- 1.2 The causes of hearing impairment are explained in terms of their physiological basis.
- Range includes but is not limited to – degenerative (age), infection, head injury, excessive noise.

Element 2

Demonstrate knowledge of how sound intensity is measured, the hearing comfort zone, and the effects of noise on the hearing mechanism.

Performance criteria

- 2.1 The measurement of sound intensity is explained in terms of the decibel as a unit of sound, the decibel scale, and the logarithmic nature of the decibel scale.
- 2.2 The hearing comfort zone is explained in terms of noise source and level.
- Range includes but is not limited to – common sources of noise, comparative levels recommended, maximum sound level for prolonged exposure.
- 2.3 The effects of noise on the hearing mechanism are explained according to the type of hearing loss.
- Range includes but is not limited to – temporary loss due to single loud exposure, permanent loss due to prolonged noise exposure.

Element 3

Demonstrate knowledge of types of, and the benefits of using, hearing protection equipment.

Performance criteria

- 3.1 The benefits of using hearing protection are explained in terms of prevention, and the effects of hearing loss.
- Range prevention includes but is not limited to – prevent permanent impairment, prevent further impairment where hearing loss has already occurred, prevent temporary impairment, prevent foreign matter entering the ears;
effects include but are not limited to – job related stress, social isolation due to deafness.
- 3.2 The uses of common types of hearing protection equipment are explained according to manufacturer's recommendations.
- Range includes but is not limited to – disposable ear plugs, canal caps with headband, ear muffs.

Element 4

Demonstrate knowledge of workplace hearing protection programme requirements.

Performance criteria

- 4.1 Audiometric testing is explained in terms of health and safety legislative requirements.
- Range includes but is not limited to – establishment of baseline reference test, notification of threshold shift exceeding 10 decibels, requirement for annual tests, audiometric records available to current and former employees upon request.
- 4.2 The requirement to advise employees and the public of the need for hearing protection in hazardous areas is explained in terms of the health and safety legislative requirements.
- Range includes but is not limited to – the use of signs in high-risk areas, provision of guidelines on exposure levels and equipment.
- 4.3 The requirement for the provision of hearing protection and workplace training programmes is outlined in terms of the health and safety legislative requirements.
- Range includes but is not limited to – thresholds for use of hearing protection, upper noise level 85 decibels, time-weighted average exposure basis over an eight hour period.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the New Zealand Industry Training Organisation office@nzito.co.nz if you wish to suggest changes to the content of this unit standard.