

# SPECIALIST SURVEYS – NOISE SURVEY



## Noise Surveys

Noise is one of the most prevalent occupational health hazards found in the workplace. Prolonged exposure to excessive noise can cause Noise Induced Hearing Loss (NIHL) commonly known as Noise Induced Deafness (NID). NID will ultimately reduce workers concentration and inhibit communications, which may escalate the risk of injury or even death. Hence accurate noise monitoring is an essential factor of a hearing conservation program. Noise monitoring will ascertain the best appropriate practice to reduce noise exposure and will help to determine the most appropriate type of hearing protector to use.

Using our new PULSAR NOVA MODEL 45 high performance sound level meter (compliant with IEC 61672-1:2002 - Class 1) which successfully combines the latest technology in noise measurement methods with ease of use and durability, UMC can clearly identify areas of potential high noise and provide recommendations for solving the high noise level conformed to the international standards. Noise monitoring includes:

- Identification of work areas with excessive noise
- Identification of individual noise sources which contribute to the excessive noise in work areas (e.g. equipment, machines, processes, operations and work activities)
- Monitoring the noise exposure levels to individual employees working in the excessive noise areas
- Creation of noise monitoring reports
- Noise mapping of work areas with excessive noise

Typical areas of application include:

- Onshore and offshore marine objects
- Shipbuilding industry
- Building and construction
- Manufacturing

*Above: Ear Protection Signs (first). Noise Control Hierarchy (second). Noise meter (third). Common types of ear muffs and defenders (fourth).*

### Noise References:

- ISO 2923:1996 - Acoustics – Measurement of noise on-board vessels
- ISO 16283-1:2014 - Acoustics – Measurement of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation
- ISO 717-2:2013 - Acoustics – Rating of sound insulation in buildings and of building elements – Part 2: Impact sound insulation
- IEC 61672-1:2013 - Electroacoustics – Sound level meters – Part 1: Specifications
- ANSI S1.4-1983 - Specification for sound level meters
- ANSI S1.4A-1985 - Specification for sound level meters (amendment to S1.4B1983)
- ANSI S3.19-1974 - Method for the measurement of real-ear protection of hearing protectors and physical attenuation of ear muffs

### FLAG administration and national regulations:

- Singapore – The Workplace Safety & Health Act WSH (Noise) Regulations
- UK – Health and Safety Executive (HSE) The Control of Noise at Work Regulations

### Statutory regulations and codes:

- IMO Resolution A.468(XII):1981 - Code on noise levels on-board ships
- International Labour Organization (ILO) Conventions no. 92, no. 133, no. 148 and no. 156
- Maritime Labour Convention, 2006 (MLC) - issued by International Labour Organization (ILO)
- Health, Safety and Environment Case Guidelines for Mobile Offshore Drilling Units, Issue 3.5, 1 January 2014 - issued by International Association Of Drilling Contractors (IADC)
- ABS guide for crew habitability on mobile offshore drilling units (MODU's), 2012
- ABS guide for compliance with the ILO Maritime Labour Convention, 2006 title 3 requirements, May 2009 (updated March 2013)
- ABS guide for crew habitability on offshore installations, 2012
- Safety and health in the construction of fixed offshore installations in the petroleum industry 1981 - issued by International Labour Organization (ILO)

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