QBE European Operations

Noise at Work

Issues Forum

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Noise at Work – Protect your people, protect your business

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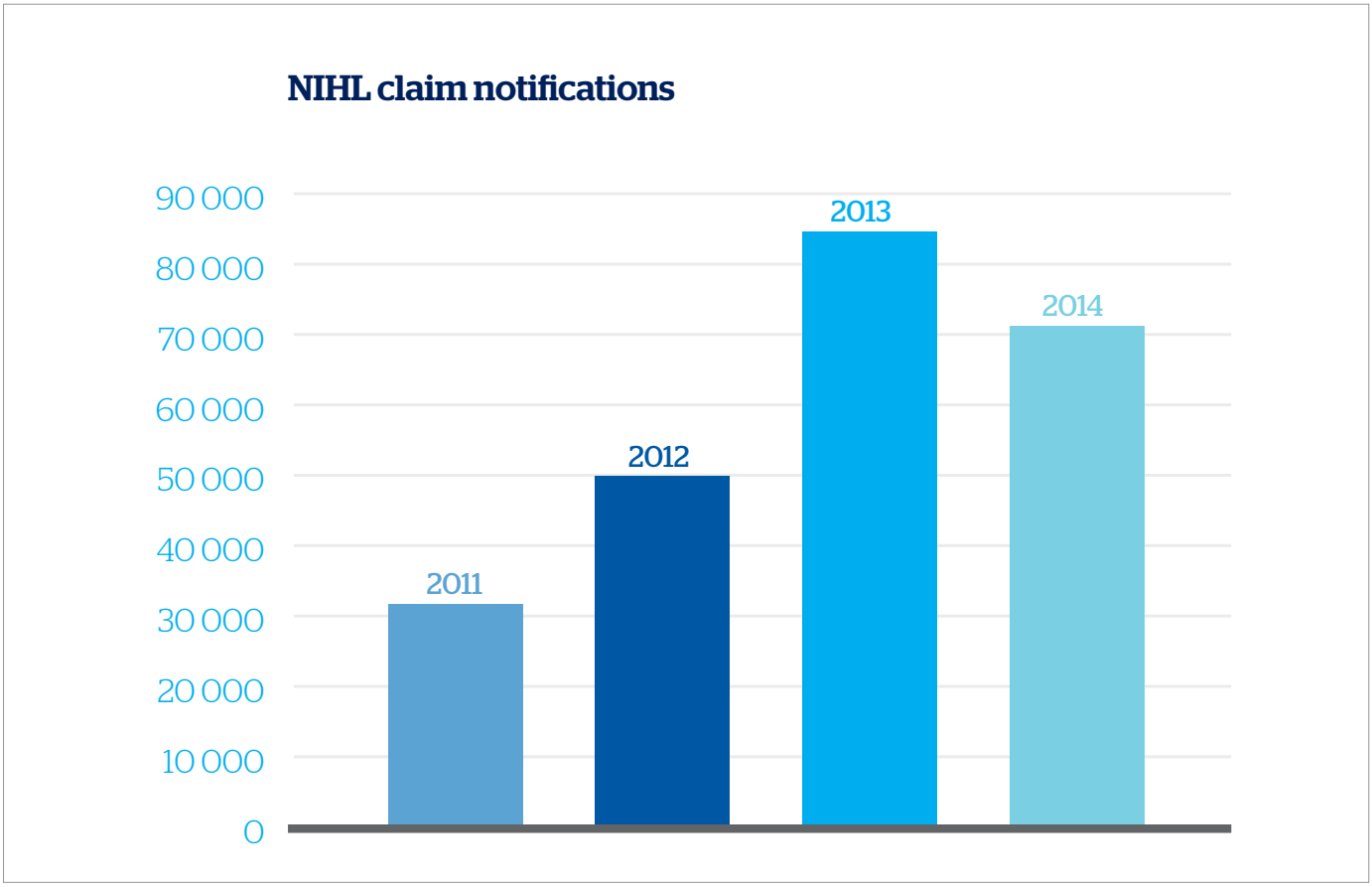
Introduction

Currently, disabling hearing loss affects 10m people and is a growing problem. This is not just an historic issue associated with heavy industry. Noise presents a risk to the health and safety of people working in both traditional and new and emerging sectors of industry, with the HSE estimating that one to two million UK workers[1] are exposed to potentially harmful levels.

By 2031 it is estimated that 14.5m people will have hearing loss in the UK (one fifth of the population). The World Health Organisation predicts that by 2031 adult onset hearing loss will be a top 10 disease burden, above cataracts and diabetes. In 2010/11, the NHS estimated its costs of managing hearing loss at £450m.



The insurance claims position

Whilst a high proportion of these claims fail at an early stage due to a failure to establish that the hearing loss is noise induced, there is a substantial cost burden associated with the resources required to manage these claims.

The UK Insurance industry is currently paying around £70m per year in compensation, and the number of claims is rising[3]. The annual Datamonitor report for 2014 shows that the insurance combined operating ratio (the sum of incurred losses and expenses, divided by earned premium) worsened by 15% to 135% with Noise induced hearing loss (NIHL) a significant deteriorating factor. Claims reserves for occupational health claims currently top £10 billion and NIHL accounts for a large proportion.

Insurers have received higher than expected volumes of new NIHL claims as the figures demonstrate[2].

Public awareness of such claims has risen as a result of media advertising and the drive by claimant lawyers and claims management companies to sign people up to make a claim whether genuine or not.

Another issue for the UK insurance industry, is the poor retention rate of NIHL claims within the fast track Civil Claims Portal, (claims under £25k value) with only 10% of occupational health related claims remaining in the portal. Multi-defendant NIHL claims cannot be processed through the Claims Portal. Claimant lawyers and claims management companies are able to charge hourly rate costs, for those claims falling out of the scope of the portal.

The case for taking action to eliminate employee exposure to excessive noise levels

Not only can noise result in irreversible hearing damage, it can cause or contribute to safety risks, and the consequences of failing to tackle noise can damage businesses financially.

The Control of Noise at Work Regulations 2005 requires employers to eliminate or minimise risks from noise, so far as is reasonably practicable, with the aim of preventing workers suffering from hearing damage and other harm.

With hearing damage, as with many occupational diseases, poor risk management today may not show up as damage until sometime in the future – by which point it may be too late to prevent further harm. Equally, action taken to control risks may not show an immediate benefit, such as might be the case with a safety-related issue that can be tracked with accident statistics. Some organisations may find this to be a barrier to identifying any poor practice in managing noise risks, perhaps continuing to rely on personal hearing protection rather than implementing practical and sustainable controls of noise risks. However, a well-managed noise management programme does not have to be expensive or complicated, and can add real value to a business with respect to culture and reputation, as well as demonstrating legal compliance and defending potential future claims.

[1] HSE studies

[2] Institute and Faculty of Actuaries, www.actuaries.org.uk

[3] Institute and Faculty of Actuaries, www.actuaries.org.uk

Good Practice

HSE guidance sets out good practice in managing noise risks:

- **Prioritised action plan**
  - Technical, engineering, organisational controls
  - Known solutions (good practice, industry standards) implemented
- **Noise risks considered at the design stage of work processes**
- **Positive " buy quiet" purchasing policy**
- **Hearing protection in place**
  - As a temporary solution, or where no other reasonably practicable alternative
- **Supporting systems in place including**
  - Maintenance, training and health surveillance

Planning and acting to control noise

The law requires that engineering, technical and organisational solutions are in place, so far as is reasonably practicable. A noise risk assessment should be completed and up to date; this need not be a complex document, and strictly there is no requirement to make noise measurements, although these will be helpful in many cases. The important aspects are to:

- **Identify and analyse where there are noise problems and who might be affected ;**
- **Identify possible solutions, including:**
  - Industry standard /accepted control measures
  - The range from 'hard' engineering to 'soft' organisational measures
  - Consultation with machinery suppliers, case studies, noise control/ engineering specialists
  - Advances in technology; what was too expensive or impractical last year might become reasonably practicable next year, as technologies, costs or circumstances change
- **Put a plan in place to carry out the actions identified, this can have short, medium and long term aims.**

It is a legal requirement to record the significant findings of the risk assessment, and the actions taken or intended to be taken. Documentation should be retained to demonstrate compliance now and in the future.

Practical engineering/organisational noise control can be relatively uncomplicated, once the right solutions are identified; however, noise should ideally be considered at the design stage of work processes and systems.

A key aspect, and a common cause of failure for some businesses, is ensuring that the control of risks is sustained, whether this be through well-designed systems of work that workers understand and can work with, systems of ongoing and preventive maintenance for noise control equipment, or necessary replacement of consumable parts.

System design & positive purchasing policy – "Buy Quiet"

Manufacturers of machinery are required by law (the Machinery Directive) to:

- **Design and construct products to state of the art for lowest noise emissions;**
- **Provide information on noise emissions, to enable buyers to choose quieter machines.**

Whether buying machinery, or putting together lines from component parts, businesses should challenge potential machinery suppliers to demonstrate low-noise designs, and provide good quality information on the noise emitted under operating conditions.

Contractual agreements with machinery suppliers on noise emissions can be helpful – if the agreements are technically sound and tied to how and where the machinery will be used. Technical specifications developed with suppliers should cover all aspects of the Machinery Directive, including noise emissions, and factory acceptance testing (FAT) and site acceptance testing(SAT)/commissioning are important. Specialist advice services may be needed in all of these areas.

Hearing protection

Personal hearing protection can be effective and has a place - but businesses often underestimate the supervisory and training burden required to ensure that protectors work not only every day, but every time they are used throughout the day. Can you really say that risks are under control if relying on individual workers having personal motivation to use hearing protection when required, and properly, or relying on supervision to achieve this, alongside all other work demands? These are among the reasons why hearing protection, as with all PPE, is at the bottom of the "control hierarchy".

Generally, hearing protection falls into two main categories, earmuffs and ear plugs. Hearing protection should be selected so as to provide enough, but not too much, - "over protection" may introduce safety risks if important sounds or warning signals cannot be heard. However, the most important factor with hearing protection is making sure that workers can and do use it, using it properly and all the time that it is required.

> "Practical engineering/ organisational noise control can be relatively uncomplicated, once the right solutions are identified; however, noise should ideally be considered at the design stage of work processes and systems."

Supporting systems

There are legal requirements to ensure the **maintenance and use of** equipment provided to control noise. Noise cabins in which the doors are habitually left open, and resilient linings that have been allowed to wear away, are examples of failures in systems of work and maintenance.

Training of workers is required, to inform them of the level of risk to which they are exposed, to let them know what you are doing to protect them and to get their buy-in to the systems and procedures you implement. They also need to know how, where and why they should use hearing protection if necessary.

A system of **health surveillance** for the effects of noise exposure is required to be in place for workers at risk. Regular hearing checks are required to identify hearing damage before it reaches a disabling stage, and also gives the opportunity to reinforce information and training on protective measures and systems of work.

Currently, **audiometric testing** relies upon Pure Tone Audiometry, which detects hearing damage at a level where damage is enough to affect the ability to hear pure tones. In other words, some damage has already occurred. There are stringent test conditions, whilst the test is a subjective one that relies on the cooperation of the person undertaking the test.

Improved testing is on the horizon with the development of the LIDEN approach (Leading Indicator of Damaging Exposure to Noise). This method of testing will give those responsible for protecting noise exposed workers timely information to take action and intervene where problems are identified. This test will be incorporated within existing surveillance programmes allowing the earliest possible detection of hearing loss.

For further information please visit:

www.hsl.gov.uk/media/363516/nhca%20workshop%20presentation%20ac.pdf

NIHL claims defensibility

To successfully defend a noise induced hearing loss claim, following the good practice advice described earlier, will provide the necessary documents and records including:

- Areas and dates worked, cross referenced to noise risk assessments
- Records and signed registers of the provision and attenuation of hearing protection.
- Records of action taken or considered (engineering controls) to reduce noise exposures.
- Records and signed receipt of information, instruction and training provided to individual employees.
- Pre/inter/exit employment audiometry results.
- Occupational Health records of all discussions with individual employees concerning noise at work, signed off by employee and employer.
- Evidence of the supervisory and disciplinary regime and specific disciplinary action for non-compliance.

Where required, documentary evidence may need to be supported by witness testimony that the wearing of hearing protection was effectively supervised, enforced and audited in accordance with safe systems of work at the time(s) and areas in question. A system of recording non-compliances of offending employees, being subject to coaching &/or disciplinary procedures, will further bolster evidence of an effective and enforced policy.

Conclusions

A well designed and managed system of noise risk management, based on a prioritised action plan of technical, engineering and organisational controls is key. Efforts to sustain controls in the long-term will not only protect your workforce from the disabling effects of noise, and demonstrate compliance with the law but can also have a positive effect on the business by improving safety culture, increasing efficiency and positively impacting the bottom line.

About the authors

Tim Ward is a Principal Consultant, Noise & Vibration, with consulting engineers HSEC. He has over 25 years of experience in the field of noise and vibration, mostly in the investigation and prevention of occupational exposures associated with ill health. He spent thirteen years with the Health and Safety Executive as one of HM Specialist Inspectors (Noise and Vibration), the last eight years as HM Principal Specialist Inspector, and also has research and consultancy experience.

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Guidance and useful information

HSE Website
www.hse.gov.uk/noise

HSE advisory pamphlet 'Noise at work: A brief guide to controlling the risks'
www.hse.gov.uk/pubns/indg362.pdf

HSE Guidance and Regulations 'Controlling Noise at Work'
www.hse.gov.uk/pubns/priced/l108.pdf

QBE Risk Management Standard - NIHL - www.qbeeurope.com/documents/riskmanagement/standards/QBE-Casualty-Risk-Management-Standards-5-Noise.pdf

HSEC website
www.hsec.co.uk

Further information

For more information please visit:
www.qbeeurope.com/risk-solutions/index.asp

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For more about our services, please visit QBEeurope.com/rs
Or email us RS@uk.qbe.com or discuss with your insurance broker.

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