



Quarries National Joint Advisory Committee (QNJAC)

Occupational Health

Information Sheet 3

June 2011

Noise at Work

Approved by the Quarries National Joint Advisory Committee (QNJAC)
(Version 1: 1 June 2011)



Target Zero Occupational Health Information Sheet No 3: Noise at Work

Legal Requirements:

- The Control of Noise at Work Regulations 2005

Noise is measured in decibels (dB) and a weighting is used for human response, this is shown as A-weighting or dB(A). Peak, impact or explosive noises are measured with a C-weighting or dB(C).

Workers exposure to noise should be assessed, controlled and monitored.

The regulations require you take specific actions at the Action values:

Lower exposure action values (EAV); daily or weekly exposure of 80 dB(A) or peak sound pressure of 135 dB (C)

Upper exposure action values; daily or weekly exposure of 85dB(A) or peak sound pressure of 137 dB (C)

There are exposure limit values (ELV) which must not be exceeded, these are daily or weekly of 87 dB(A) or peak sound pressure of 140 dB (C)

The reduction in noise provided by wearing hearing protection may be taken into account when assessing exposure to the ELV.

Hearing protection should be provided if requested when noise exposure is between the lower and upper EAV. At the upper EAV employers must ensure hearing protection is worn and hearing protection zones are properly marked.

Other duties include; health surveillance (hearing checks) when workers are frequently exposed to noise above the upper EAV, assessing the risk to workers hearing from noise, provide them with information and training, and reducing the risk through technical means wherever reasonably practicable.

Why should you read this guidance?

Activities undertaken in the quarrying industry can lead to workers being exposed to levels above EAV. The Exposure Limit Value (ELV) may also be exceeded, for example during blasting operations. Failure to control noise exposures can result in hearing damage such as noise induced hearing loss (NIHL) or tinnitus. The effects of NIHL are permanent and cannot be reversed. Each exposure to high noise levels can increase the effects of NIHL.

Compliance with 'The Control of Noise at Work Regulations 2005' includes:

- Assessing the risk to workers from noise at work, this will require obtaining a reliable estimate of employees exposure and comparing these to EAV and ELV this may require measurement of the noise levels or very occasionally, in certain circumstances, personal noise dose monitoring.
- Taking action to reduce the noise exposure that creates the risk.
- Provision of hearing protection if it is not possible to reduce the noise exposure by other means.
- Making sure that noise exposure does not exceed the legal limits.
- Providing workers with training and information.
- Health surveillance (hearing checks) should be carried out for workers frequently exposed to noise at or above the upper EAV. Where exposure is between the lower and upper EAV or where employees are only occasionally exposed to levels above the upper EAV, health surveillance should still be provided if you find out that an individual may be particularly sensitive to noise.

There is a potential for noise induced hearing loss personal injury claims being made against the employer

Certain process activities, such as blasting, crushing, screening, and drying, may expose workers above the upper exposure action values, as can the use of certain power tools such as pneumatic air tools. Some categories of mobile plant may expose workers to the lower exposure action values.

Consideration should be given to the risks of contractors as well as employees.

Paybacks/Benefits to the business:

- Effective risk management of the workforce regarding risks to their health.
- No noise induced hearing loss for the worker.
- Improved performance from the workforce.
- Less fatigue experienced by the workforce.
- Reduces the risk of injury claims and potential reduction to employee liability insurance premiums.

Guidance:

Simple tests to see whether a noise risk assessment is needed

Test	Probable noise level	A risk assessment will be needed if the noise is like this for more than:
The noise is intrusive but normal conversation is possible	80 dB	6 hours
You have to shout to talk to someone 2 m away	85 dB	2 hours
You have to shout to talk to someone 1 m away	90 dB	45 minutes

The HSE web site offers a considerable amount of guidance including:

- Noise at Work – Guidance for employees on the control of Noise at Work Regulations 2005 <http://www.hse.gov.uk/noise/regulations.htm>
- Employee guidance <http://www.hse.gov.uk/noise/regulations.htm>

Free leaflets and many priced publications are free to download from <http://books.hse.gov.uk/hse/public/home.jsf>

Useful contacts:

HSE website; <http://www.hse.gov.uk/>
Safequarry website <http://www.Safequarry.com>
MPA website <http://www.mineralproducts.org>

Controls:

Where possible noise should be eliminated at source.

If this is not possible, reduce the noise to as low as reasonably practicable and if this is not possible provide hearing protection, and ensure it is used if the level is greater than the upper EAV.

- If possible enclose noisy equipment to reduce noise levels.
- Ensure plant such as sorters and graders are correctly installed on anti-vibration mounts to reduce structure borne noise transmission.
- Line chutes and hoppers with impact rubber or metal rubber sandwich.
- Utilise modular polypropylene screen decks instead of woven wire or punched plate.
- Control access to noisy areas and provide noise refuge.
- Use control cabins and/or closed circuit television (CCTV) to operate noisy plant.
- Schedule work to reduce the need for employees to enter noisy areas while equipment is operating.
- Install air-conditioning on mobile plant to ensure that windows and doors can be kept closed whilst driving/operating.
- Ensure that noise control features are subject to regular inspection and maintenance to perform at the required level.
- Carry out a noise risk assessment on any equipment hired in or to be purchased.

Provision of hearing protection is an option of last resort. It may be needed for maintenance activities with a short-term high exposure level. Ensure compatibility of hearing protection with other personal protective equipment such as safety glasses, dust mask etc.

Note:

Ensure that workers using Hearing protection are not “over protected” as this can lead to safety risks through isolation, poor communications or the failure to hear audible alarms. Consider radio communication headsets or alternative alarms such as flashing lights.

Training/Toolbox talks:

Employees and contractors will need to be:

- Informed of the tasks and activities that present a risk of noise exposure and the precautions taken to reduce the risk.
- Provided with the correct level of Hearing Protection if the noise exposure cannot be controlled by other methods.
- Given training for the correct use, storage and maintenance of hearing protection.
- Informed about routine health surveillance to be undertaken.
- Made aware of their legal rights and obligations under these Regulations.

Key Performance indicators to consider:

- Are noise risk assessments up to date in line with company policy?
- Does your current noise risk assessment reflect accurately the conditions on your site?
- Have you implemented the noise reduction measures identified from the site noise risk assessment?
- Are you maintaining your noise control measures?
- Percentage of “at risk” population that have received noise information, instruction and training.

This information sheet has been produced by the QNJAC Target Zero Occupational Health Working Group in conjunction with the MPA Occupational Health Working Group.

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