FAQs for Construction Noise & Hearing Conservation

UKHCA UK HEARING CONSERVATION ASSOCIATION

MEASURING NOISE

Do we need to measure noise all the time?

- No, you don't. Understanding noise levels is important in order to identify high noise sources but the key thing is to know which ones are causing the big problems and therefore need the greatest attention.

Our plant and equipment change all the time do we need to measure every change, every time?

- If new equipment is brought in it might be useful to measure the impact this has on overall noise levels, however it is not essential to measure if there are things you can do to reduce the noise and the impact it has on the area.
- As construction sites can change a lot with moveable plant and kit having to measure every time would be a costly and resource sapping exercise. Understand high noise sources and try and reduce those, designing out, isolating the noise through enclosures etc… and **after** these measures you may still need to use hearing protection.
- A useful approach is to label plant with a "safe working distance" sticker or label that says "Wear hearing protection within X m" then there is no need to measure or worry about moveable plant

We hire a lot of tools in from hire companies do they measure the noise?

- Manufacturers data can be useful on noise emission levels of equipment and this can be used to understand noise on site. It is not representative of what happens on site, due to things like tool wear, blunt bits and reflecting surfaces (working in an enclosed or partially enclosed space can increase risk by x2 to x10). However, these data are good to compare similar tools/equipment to be able to choose a quieter option.
- Ask your hire company for information on noise emissions and lower noise alternatives. The Hire Association Europe has done a lot of work with its members to get better information on noise levels for customers. If you are hiring in your tool and plant, ask your supplier about noise control options or alternatives. Good hire companies make a point of telling you about what PPE you should be considering when taking a product on hire.

Who can measure the noise?

- Noise data supplied with plant and equipment can give you an initial indication of where noise may be a problem and simple rules of thumb can be applied (if you have to raise your voice to be heard it's too loud!). However, if you do need a proper noise survey then a qualified and competent professional should be used to help you understand noise sources and potential exposures. Be aware of the difference between environmental noise measurements and personal and static measures done for worker exposure levels.

Can I use my phone app to measure noise?

- You can but this is not a properly calibrated piece of kit with the appropriate settings. It is only an indicative measurement. The best thing to do is remember the rule of thumb, if you need to raise your voice to be heard by a colleague or other people present in the area then it is too loud.

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CONTROLLING NOISE EXPOSURE

What is the best option for noise control?

- The best thing to start with is designing it out. There can be a lot of time spent designing and scheduling work packages so there may be information here that could be used to help inform where and when noisy work tasks are likely to occur and where you can look to focus methods of reducing noise.
- You can also put pressure on suppliers to provide you with quieter kit and equipment by having a Buy Quiet / Hire Quiet policy.
- There are many ways to think about reducing noise. One simple principle could be to *Measure twice, cut once* where jobs are planned correctly and not rushed so that repeat work is not required. It provides a high level of workmanship and reduces noise exposure.
- Think about having a good maintenance policy to keep tools efficient as well as producing less noise and vibration!

If other contractors are using noisy tools it doesn't impact my hearing and there is nothing I can do

- Loud noise can impact many people on or around a site from where it is produced. If someone is using a stone cutter then it is not just exposing them to noise, but also those in the area around them. You should look to discuss with them what can be done to reduce the noise at source, provide barriers between the noisy work and other workers on site or try to plan work away from the noise source.
- A useful control measure is distance – the further away you can move from the noise source the lower your exposure. You may consider labelling plant with a "safe working distance" sticker to show a distance beyond which you don't need to wear hearing protection.

It's hard to know where best to apply noise control measures instead of hearing protection as a construction site is always busy and changing.

- That is true, but you can purchase active noise signs that light up at different noise levels. So, when the noise increases, the sign indicates noises levels going from a "green" (safe) levels up to a "red" (high noise) level so hearing protection and or controls should be focussed in these areas.

We do a lot of work to reduce noise for the neighbours but not for the site.

- Actually, the noise control you must do for the neighbours will also have a positive impact on the workforce. Use the solutions you apply to stop noise travelling to local residents closer to the noise sources and you will better protect your workers, so everybody wins.

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HEARING PROTECTION

Is hearing protection my best option?

- Tackling the noise at source is the best solution. if this is not possible AND where all has been done to reduce noise as far as possible, hearing protection provides a vital last line of defence. Therefore, it must be fitted and used correctly as sound can leak into very small gaps. As part of providing hearing protection, workers should be given a choice of appropriate (and CE marked) earplugs/defenders, PLUS training, PLUS hearing checks.

- Be aware that hearing protection brings with it issues around audibility and over protection – as well as the need to enforce and supervise staff to wear it!

Is all hearing protection the same?

- There are many different types of hearing protection available and it is often hard to choose the right type for you and your team. Hearing protection should be chosen dependent on the nature of the job (movement, hot / sweaty), the individual and their preferences or health needs and how long they need to wear it – not just the highest protection factor!

When I wear hearing protection, I cannot hear anything is that a problem?

- You should always be able to hear safety warning signs or alarms. In high noise levels, PPE enhances the ability to hear warning signals as the ears are no longer overloaded. However, if the PPE provides over-protection for the environment (i.e. noise levels inside the protectors <70dB(A)), this will make hearing warning signals more difficult. If overprotection and ability to hear is a problem, then you could look to use filtered or level dependent type active hearing protection. This allows certain low noise levels through but prevents the transmission of higher harmful noise levels. You can also now get hearing protection that connects to a radio system or Bluetooth, so you can communicate with colleagues but still protect your hearing.

I just wear my headphones instead and drown out the noise with my music. Is that protecting my hearing against the noise from a construction site?

- Absolutely not! Adding on to one noise with a louder noise is only going to damage your hearing further and increase the likelihood that you won't hear warning or alarms. Headphone use should be banned in high noise areas.

How long do earmuffs last for?

- It really depends on how they are used and cared for. A simple thing to do is check the bounce in the foam on the muff cup. If there is still some bounce in there and the other materials are not damaged or dirty, then the muff is likely to still be in good repair. 6 months is probably a good guide as to when to replace earmuffs.

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GENERAL CONSTRUCTION NOISE

It is hard to know exactly what the noise problem is and where to start.

- Chase it back. If you are on site and notice that there is a task that seems particularly noisy start asking why are we doing that, could we do it differently, more efficiently. Most site managers will do things like monitor how much waste is getting thrown into the site skips to keep an eye on how well the design is going and if they are wasting money. You can try to think of noise on site in a similar manner. When you spot issues think; is it dictated by the design, or lack of design, and then take the issue back to the designer.

It's construction, it's always going to be noisy, so we just have to get on with it.

- Noise is harmful and it is often avoidable. Just because we are used to it is no excuse to ignore it. There are so many ways to think about reducing noise exposures. It all depends on what is making the noise, the way it impacts the site and what options work best for everyone.
- Don't forget noise is excess energy escaping so less noise means increased efficiency. Noise is also a stressor, so less noise means less stress and distraction on site!

My hearing is already damaged, so I might as well carry on with it and not bother.

- If your hearing has already been damaged, you must take even greater care of the hearing that you have left to avoid a very serious loss of function in future years.