

### ***Appendix 3: IEE for high risk tasks creating construction noise***

This information sets out the IEE for common high risk tasks where deficiencies in expected control standards are found. **The control standards for common construction tasks are set out in the webpages. Inspectors should read the Tables below in conjunction with these.**

The 'likelihood' in these tables is based upon consideration of 'typical exposures' scenarios above the upper exposure action value (85dB) and the application of the EMM to construction noise as outlined in [Appendix 2](#). Exposures may vary on occasions. The key factor is the level of the noise and the duration of exposure considered alongside the levels of control in place and their effectiveness relative to the expected standard of control for that task. Inspectors should consider all the factors in [Appendix 1](#) in making a judgement on the likelihood and risk gap.

#### **Prohibition Notices**

Prohibition Notices (PNs) may be relevant for noise exposures where there is likely to be a sustained exposure to high noise levels (above 85dB) for prolonged periods. To support a PN there will need to be a **demonstrable risk of hearing damage** ie evidence that the employee(s) is (are) exposed to noise above 85dB from day to day and month to month such that there is a demonstrable risk.

A PN may be issued where the HSE sector has agreed with the industry that the work method is no longer acceptable and will be prohibited where seen under reg 6(1) or 6(2) e.g. pile capping over sustained periods. They may also be relevant where there is a lack of consideration or appropriate implementation of elimination or engineering controls where these are well established and agreed with HSE sector and industry as reasonably practicable AND there is demonstrable risk of hearing damage.

A PN may be issued for the lack of provision of hearing protection at transient sites where exposure is likely to exceed UEAV and there is a demonstrable risk of hearing damage reg 7(2). Where exposure is above the limit value and the dutyholder cannot supply personal hearing protection for immediate control of risk and work is likely to continue under these conditions unless an inspector intervenes a PN would be expected under reg 6(4)

**Table 3: IEE for high risk construction noise tasks**

Issue (CNAW Regulation)	Consequence & Likelihood	Risk Gap	Standard	IEE
<ul style="list-style-type: none"> <li><b>Tunelling by hand with clay spade or jigger pick (95-117 dB)</b></li> </ul>				
<p>Notes: The high noise level of these tasks mean that in all but the smallest tunnelling jobs there should be mechanisation. If hand digging is used then lower noise emission tools, silenced body/damped picks, silence the pneumatic exhaust, maintain equipment and air lines, operate in accordance with manufacturers instructions</p>				
No elimination of risk by mechanisation where reasonable to do so	Serious and Probable	Extreme	Established	IN Reg 6(1)
Where no elimination and other control solutions absent or ineffective	Serious and Probable	Extreme	Established	IN Reg 6(2)
No provision or ineffective use of hearing protection	Serious and Probable	Extreme	Defined	IN Reg 7(2) or Reg 8(1)
<ul style="list-style-type: none"> <li><b>Scabbling (94-105dB)</b></li> </ul>				
<p>Notes: Specify finishes that do not require scabbling. Finishes can be designed into shuttering using special moulds, design to allow larger concrete pours/consider work sequencing; specify /use non mechanical scabbling methods, use lower emission tools. Surface preparation to ensure good concrete bond can be achieved by other methods e.g. cast in proprietary joint formers or chemical retardants and water jetting</p>				
No elimination of risk through design where reasonable to do so	Serious and Probable	Extreme	Established	IN Reg 6(1)
Where elimination not obviously reasonable but other controls absent or ineffective	Serious and Probable	Extreme	Established	IN Reg 6(2)
No provision or ineffective use of hearing protection	Serious and probable	Extreme	Defined	IN Reg 7(2) Reg 8(1)
<ul style="list-style-type: none"> <li><b>Breaking concrete, asphalt etc. with hand operated breakers (96-105 dB) in new concrete/masonry and other breaking work</b></li> </ul>				
<p>Notes: plan cast in ducts, detail box outs to minimise the breaking of new concrete. Use boom mounted hydraulic breaker on construction plant with noise protected cabs; use lower noise emission tools; silenced body/damped chisel; maintain equipment/air lines; operate in accordance with manufacturers instructions</p>				
No elimination of risk through design or mechanisation where reasonable to do so	Serious and Possible	Extreme	Established	IN Reg 6(1)
Elimination not obviously reasonable but other controls absent or ineffective	Serious and Probable	Extreme	Established	IN Reg 6(2)
No provision or ineffective use of hearing protection	Serious and Probable	Extreme	Defined	IN Reg 7(2) Reg 8(1)
<ul style="list-style-type: none"> <li><b>Pile cap removal using hand operated breakers (96-105dB)</b></li> </ul>				

Notes: Pile cap removal using hand operated breakers is not acceptable. Consider alternatives solutions eg pile head removal using bursters/crushers, Elliot method, Recipieux method or use hydraulic pile croppers and design pile spacing and pile re-bar for mechanised cropping. NB a limited amount of dressing of the pile cap with hand held breakers may still be required

No elimination of risk through design or mechanisation where reasonable to do so	Serious and Probable	Extreme	Established	IN Reg 6(1)
Where elimination not obviously reasonable and other controls absent or ineffective	Serious and Probable	Extreme	Established	IN Reg 6(2)
No provision or ineffective use of hearing protection	Serious and Probable	Extreme	Defined	IN Reg 7(2) Reg 8(1)

• **Abrasive disc cutters/angle grinders (98-104 dB)**

Notes: Consider elimination of need for on site cutting by design/prefabrication, sharpen cutters/replace discs regularly; maintain equipment and operate in accordance with manufacturers instructions minimise numbers exposed.

No elimination of risk through design or mechanisation where reasonable to do so	Serious and Probable	Extreme	Established	IN Reg 6(1)
Where elimination not obviously reasonable but other controls absent or ineffective	Serious and Probable	Extreme	Established	IN Reg 6(2)
No provision or ineffective use of hearing protection	Serious and probable	Extreme	Defined	IN Reg 7(2) Reg 8(1)

• **Striking (dismantling) proprietary falsework (using metal hammers to free collars (107 dB, Peak 136 dB at 2 m from activity))**

Notes: Maintain the falsework legs properly – follow manufacturers instructions on cleaning and lubrication to reduce effort required to release legs. Use a purpose made spanner whenever possible. Minimise the use of hammers, if hammers must be used use plastic/rubber hammers and wear hearing protection, shield others from the noise

No elimination of risk through design or planning where reasonable to do so	Serious/probable	Extreme	Established	IN Reg 6(1)
Where elimination not obviously reasonable and other controls absent or ineffective	Serious and probable	Extreme	Established	IN Reg 6(2)
No provision or ineffective use of hearing protection	Serious and probable	Extreme	Defined	IN Reg 7(2) Reg 8(1)