



ORR occupational health programme update

June 2017

Introduction

This quarterly brief updates you on progress with some of the work under [ORR's Occupational Health programme 2014-19](#), to inform discussions on health with ORR inspectors. We have identified key messages for rail duty holders and would welcome [feedback](#). You can now subscribe to occupational health [news](#).

This issue focuses on:

- Planned ORR inspection on silica dust from common construction tasks
- Eliminating or Reducing Exposure to Hand-Arm Vibration

1. Planned ORR inspection on silica dust from common construction tasks

As ORR has identified respiratory disease, including exposure to respirable crystalline silica (RCS), as a strategic health priority, we are planning further inspection work on silica this year. This will focus on managing exposures to silica from common construction type tasks during property maintenance and refurbishment activities across all parts of the industry, and will look at compliance by rail companies acting as clients as well as their contractors. This planned inspection aims to raise awareness of risks to railway workers from silica exposure from these common activities, and to establish how well rail employers are managing these risks, in order to drive improved compliance with The Control of Substances Hazardous to Health Regulations 2002 (COSHH).

Many in our industry do not recognise that tasks involving cutting, chasing, drilling, grinding and any resultant dry sweeping of concrete, stone, aggregate, brick, tiles, or cement/mortar can potentially expose rail workers to high silica dust levels, well over the Workplace Exposure Limit of 0.1mg/m³. There is no reason why exposures cannot be properly controlled as the controls needed are well established, including use of on-tool extraction for portable equipment; water sprays to suppress the dust; suitable vacuum cleaners (M type as minimum) rather than dry sweeping; and suitable FFP3 standard respiratory protective equipment (RPE) in conjunction with technical and operational controls. If your workers don't fully understand the risks from exposure to silica dust, they are less likely to use the controls properly and report any faults, so training is absolutely key.

ORR expects rail companies to manage exposure to silica dust in this type of work in line with HSE good practice guidance for the construction industry. HSE has published relevant practical guidance on [control of construction dust, including use of cut-off saws](#) and [on-tool extraction](#), and has worked with other EU national labour inspectors to develop comprehensive [guidance](#) on risks from worker exposure to RCS on construction sites. This [guidance](#) includes simple risk control sheets for a dozen common construction type tasks which clearly set out the expected or benchmark standards needed to achieve adequate control. ORR will be using these task risk control sheets as part of our inspection work.

Key messages:

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- Have you assessed exposures to silica dust in routine maintenance and refurbishment tasks, including on railway buildings, as part of your COSHH assessment? Are you aware of the [control measures needed](#), beyond putting workers in RPE? Have you give priority to technical (e.g. on-tool extraction, water sprays) or organisational controls (e.g. methods of work such as use of block splitters rather than saws), with RPE used as a last resort or to reduce residual risk?
- Where you contract out this type of work, as the client do you require the work to be planned and organised to minimise the numbers of workers exposed, and do you specify use of tools with dust suppression fitted? How effectively do you monitor compliance?

- Do your workers appreciate the risks from exposure to concrete, stone, cement and brick dust? Do they understand that fine dust particles that can reach deep into their lungs are invisible under normal lighting? The [free NTTL silica campaign resources](#), including posters, leaflet, pocket cards and tool box talks, could be a powerful tool for communicating these messages: Network Rail has dual branded versions of some of these resources. HSE has produced some powerful video clips illustrating poor control and peaks in RCS exposure during [use of cut off saws for paving](#); [chasing concrete and chasing mortar](#); and [dry sweeping](#). These may be useful for training of workers, site supervisors and line managers.

2. Eliminating or Reducing Exposure to Hand-Arm Vibration

RIDDOR reports for hand arm vibration syndrome and carpal tunnel syndrome as a result of using power tools dominate the health data received by ORR each year. In addition to the RIDDOR report to ORR, a HAV diagnosis should trigger a review of your workplace risk assessment, with priority given to a thorough investigation of any ‘worsening’ cases which will almost certainly be linked to current working practices in your company. Information on the prevention and management of risk to hand arm vibration is available on HSE’s website free publication L140 and approaches for reducing and control in HSG170.

Previous ORR Industry Briefs have covered the requirements for health surveillance, so in this edition we focus on the approaches to control highlighted in HSE publication HSG170, “Practical ways to reduce the risk of hand-arm vibration injury”.

Key Messages:

- Don’t wait, but where there are signs of people reporting tingling and numbness symptoms in their hands or blanching of the fingers:
- Look at the process – could you eliminate the need for powered hand-held tools by mechanisation? Could you introduce remote or power-assisted control?
- Look at the Task – could you reduce or mechanise the force which the operator has to exert to do the job?
- Look at the Tools – are you providing the most appropriate tool for the job? Are lower vibratory tools available? Are the tools performing in accordance with the vibration emission values declared by the manufacturer?

- Check Maintenance requirements – do your maintenance schedules conform to the manufacturers specifications? Are your maintenance arrangements adequately monitored and recorded? Do you know how often tools should be replaced? Do you keep the tools sharp? Do you have a robust system for putting defective tools in “quarantine” and preventing them being taken back into use?
- Look at the work schedule – could you reduce exposure by introducing job rotation? Are there other people available to rotate with?
- And check the operator usage – are operators using the tools correctly, in accordance with manufacturer’s instructions? Do you train operators to use the correct tools for the job? Are the correct tools available?
- A number of case studies on the ORR website provide good examples of how vibration exposure has been eliminated or exposure reduced with associated productivity gains by substituting the tool being used when lifting the linoleum when renovating train carriages, and using a remote control breaker rather than using hand-held breakers. Please get in touch if you have examples of where you have eliminated or reduced the exposure to hand-arm vibration, ORR is keen to share more examples of good practice



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