

April 2012

ORR occupational health programme update for rail duty holders

Action by account holders

This quarterly brief aims to bring you up-to-date on progress with some of the work under the ORR [Occupational Health programme 2010-14](#), to help inform discussions on health at routine liaison meetings with ORR inspectors. We have identified key messages for rail duty holders and would welcome [feedback](#).

This issue focuses on:

- Health risk assessment – inspection findings from 2011-12 and priorities for this year
- New RSSB toolkit for assessing and managing musculoskeletal disorder (MSD) risk in train driving cabs
- New HSE study on costs of new work related ill health cases strengthens business case for rail employers to do more

1. Need for better understanding of health risk assessment

Our inspection work on health in 2011-12 focused on health risk assessment and control under COSHH, and also for hand arm vibration (HAV) exposure. A recurring theme has been the industry's continued reliance on use of proprietary COSHH assessment packages, in many cases resulting in inadequate control of key health risks. This has been particularly evident for assessing risks from process by-products such as dust (in rail grinding; silica in ballast handling), fume (gas cutting and welding), and biological agents (proliferation of legionella bacteria in water systems). Failure of mainline contractors to properly assess the risk from oxy-gas cutting of rail resulted in formal enforcement action against the principal and sub-contractors.

ORR is keen to encourage rail companies to move away from over-reliance on proprietary COSHH assessment packages, but rather to see them as a useful input to a wider health risk assessment process. Our experience over the past two years has shown that proprietary COSHH assessment packages, when used inappropriately and/or in isolation, can fail to deliver an adequate task specific health risk assessment– we have found many examples of single sheet assessments based on a series of pictograms, with poor understanding from the user of the need for and/or implications of exposure monitoring; the priority on technical and engineering controls over respiratory protective equipment (RPE); the requirements for maintenance of control measures; and for health surveillance. Although such systems can be a useful tool, they need to be used as a part of the COSHH assessment process, rather than being seen as delivering complete compliance with COSHH.

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On assessment of HAV risk, our inspection findings were more positive. We found evidence of some contractors using independent [OPERC vibration data](#) to inform their HAV risk assessments. Use by Network Rail maintenance of small plant HAV and noise datasheets was useful in informing assessments; importantly these should help site workers to identify 'how much of the job can be done' rather than just maximum exposure times, as well as highlighting lower vibration tools for specific jobs.

We want to see the industry use task based health risk assessments that reflect actual working conditions, with a clear understanding among managers and supervisors of what a suitable and sufficient health risk assessment looks like. We have found some encouraging signs of progress. The mainline industry has been working collaboratively, via its Infrastructure Safety Liaison Group (ISLG), to assess and control exposures to silica in ballast handling operations across the supply chain. RSSB has identified potential to add value to the mainline industry's efforts on health, including by looking at good practice in health risk assessment in the coming year.

For 2012-13, our planned inspection on health will continue to focus on key significant risk areas and areas of known poor compliance, including HAV and hazardous substances, especially silica, asbestos, and biohazards. We will also look at securing better understanding of legal requirements on health, including on competence and training, stress, and MSDs. At industry level, efforts will focus on promoting and supporting improved industry leadership on health; competence in health management; and better intelligence on ill health incidence and costs.

Key messages:

- **ORR expects duty holders to demonstrate a clear understanding of what a suitable and sufficient COSHH assessment looks like. Where proprietary assessment packages are used, are the outputs used to inform realistic and meaningful task based assessments for those doing and supervising the work? How is this communicated to front line managers and supervisors?**
- **How comprehensively are health risks from process by-products, including dust (e.g. from grinding, sanding, polishing, grit blasting, ballast handling); fume/vapour (e.g. from diesel engine exhaust emissions, welding and gas cutting, painting, degreasing); and biological agents (e.g. from legionella growth in train washes, emergency showers, and on-train water tanks; Weil's disease and tetanus from contaminated water and soil; viruses from human remains), captured in your COSHH assessments? Is there adequate exposure monitoring data to support COSHH assessments where necessary?**
- **Duty holders should note ORR's inspection and intervention priorities on health for 2012-13. Focus for our planned inspection will be HAV and hazardous substances, particularly silica, asbestos, and biohazards. We will also work to improve understanding of legal requirements on health, including on competence and training, as well as stress and MSDs.**

2. MSDs - New RSSB toolkit for assessing and managing MSD risk in train driving cabs

RSSB has recently launched a [risk assessment tool](#) (known as MAT tool) for managing the risk of MSDs in train cabs, aimed at passenger and freight train operators, as well as infrastructure contractors driving on track machines (OTMs).

The tool considers potential risks created by three key elements of train driving (the cab environment; the individual driver; and the driving task), and identifies areas where adjustments might be able to reduce risks. The tool only looks at the driving task; it does not cover access to/egress from the cab or any operational tasks. The cab assessment involves comparison of actual cab dimensions against

anthropometric data for GB population, to identify areas where modifications to the cab might be investigated to accommodate the majority of the driver workforce. The individual assessment element compares body measurements for individuals at particular risk (perhaps because they have MSDs or are very tall or short for example) with actual cab dimensions, to identify areas with a mismatch between the two, and where reasonably practicable modifications/adjustments might be needed to accommodate individual 'vulnerable' drivers.

The task assessment element is based very closely on principles [in HSE's ART \(Assessment of Repetitive Tasks\) tool](#) but has additional elements included. The assessment looks at the frequency and repetition of driving task; force applied; awkward postures in neck, upper and lower limbs; and additional risk factors (including task duration, whole body vibration, and psychosocial factors). A risk score is produced for elements of the driving task and possible control measures suggested. One copy of the MAT tool is available free of charge to RSSB members, with subsequent copies chargeable to cover the cost of the licensed anthropometric data. Non RSSB members can also purchase the tool.

Although ORR has not been involved in development or testing of this tool, we support the mainline industry's efforts to adopt and develop further good practice on health risk management. Although a risk assessment for MSD risk is already required under the Management of Health and Safety at Work Regulations 1992, the proposed EU MSD directive (still under consultation) is likely to require all tasks with a physical component to be assessed using four risk factors: repetitive motion, awkward postures, force, and contact stress. The MAT tool should be helpful in informing such risk assessments for train driving.

Key messages:

- **If you are a Railway Group member and you have used the MAT tool to inform your MSD risk assessment, consider sharing your experience and any additional driving task data with RSSB or/and other rail businesses. This may be particularly helpful for infrastructure contractors' use of OTMs, where there is less machine specific data in the tool.**
- **What conclusions have you reached about adjustments to the cab or the driving task? Have you applied the individual assessment to any drivers with historic or existing MSD problems, and to what effect? Are all reasonably practicable steps being considered to minimise MSD risk?**
- **Where the MAT has not been used, how is MSD risk from train driving assessed? Have you considered all three risk areas - cab environment, individual risk, and driving task (using the principles in the HSE ART tool) in your risk assessment?**
- **Does your MSD risk assessment include non-driving tasks, such as access to/ egress from the cab; driver only operated look back despatch; and OTM operation?**

3. Strengthening the business cases for better management of workplace ill health

A new [HSE cost model](#) estimates that the total cost of new workplace injuries and ill health (excluding occupational cancers) was around £14 billion in 2009-10. Of the total cost, work related illness cost society an estimated £8.5 billion. Just over a half of this £8.5 billion cost fell on individuals (including monetary value for pain and suffering), with the remainder shared between employers and government – this equates to an estimated cost of £1.87 billion to GB employers in 2009-10 from new workplace illness. New cases of stress and MSDs, recognised as key workplace health issues in the rail industry, together accounted for 80% of the total number of self-reported ill health cases in 2009-10.

As well as estimating aggregate costs for GB society (individuals, employers, and government) arising from current working conditions, it also looked at unit costs (appraisal values) for each new case of workplace ill

health. Total costs to society per case of work related ill health were calculated at £16,100. Employers were estimated to bear costs of £4,000 per ill health case (compared with £3,100 for RIDDOR reportable injuries). Further work is planned to look at significantly higher costs associated with long latency conditions such as work related cancers and also refine costs associated with those who never return to work.

Although data in this cost model is not available specifically for the rail industry, it undoubtedly adds powerful weight to the business case for better management of work related ill health by employers across the rail sector.

Key messages:

- Senior managers are encouraged to review the new [HSE cost model Costs to Britain of Workplace Injuries and Illness](#), and consider the implications for your business.
- If you do not have reliable cost estimates for work related ill health, apply the HSE unit cost estimates for workplace ill health to your ill health incidence data in order to obtain an estimate on ill health costs for your business.
- ORR encourages all rail companies to [report voluntarily to us](#) on an annual basis against the baseline indicators (on lost time, cost, reporting) in our baseline survey.

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