Managing rail staff fatigue

10. Appendix A: Travel time

Driving for work and associated risks

10.1 Time spent travelling to and from work does not provide rest in the same way as time spent at home. This is especially true of staff who drive themselves to, from, or at work, since, to state the obvious, driving provides no opportunity for sleep. Travelling as a passenger in a car, van, taxi or by public transport prevents a fatigued employee endangering other road users but does not allow the same opportunities for sleep and rest as a bed at home or in lodgings, with consequences for subsequent fatigue.

10.2 An estimated 25 to 33% of fatal and serious UK road traffic accidents involve drivers who are on the road for work related reasons (HSE, 2001). Fatigue is thought to cause 20% of all road crashes and 25% of all serious or fatal crashes (RSSB, 2013).

10.3 The courts take a serious view of employers not adequately controlling fatigue in staff driving home after work. In March 2020, ORR successfully prosecuted 'Renown' for failing to manage worker fatigue. This was a landmark case following the tragic deaths of two mobile rail maintenance staff driving home after an overnight welding job. The driver did not appear to have had any significant sleep for more than 24 hours before their vehicle collided with one parked in a layby. 'Renown' was prosecuted on three offences, under sections 2 and 3 of the Health and Safety at Work Act (1974) (risks to employees and non-employees respectively), and under regulation 3 of the Management of Health and Safety Regulations (1999) for failing to carry out a suitable and sufficient risk assessment in respect of fatigue risks. The successful prosecution resulted in a £450,000 fine for the company as well as £300,000 in costs. In 2002 a worker for a potato firm driving home after a third consecutive long night shift crashed and died when his van drifted into

the path of an oncoming lorry. The firm had failed to monitor and control the hours employees worked, and the deceased was thought to be suffering from chronic fatigue causing him to fall asleep at the wheel. Again, the firm was prosecuted under the Health and Safety at Work Act (1974) and convicted of failing to ensure the health and safety of their employee and the public.

10.4 Driver fatigue is a serious issue amongst those who drive on the road for work as they are more likely to drive in fatiguing situations due to (for example) long working and driving hours, irregular shifts, time pressures, at times of day when sleepiness levels naturally peak due to circadian rhythms and / or following sleep loss and potentially covering long distances.

10.5 Individual differences, other health conditions, social and domestic circumstances and poor driver awareness of both fatigue and effective countermeasures to manage the risks can also put drivers at an increased risk of a sleep related road traffic collisions at work. Risks and signs to look out for when driving are illustrated in the diagram below (RSSB, 2022).

Figure 10.1 Risks and signs to look out for when driving



Source: RSSB (2022) Helping you manage fatigue risk while on call Good Practice Guidance

10.6 How long people have been awake is a key consideration - long journeys to work mean staff

may well become unfit to work safely later in the shift and unfit to drive home safely. Seventeen hours of sustained wakefulness leads to a decrease in driving performance equivalent to a blood alcohol level of 0.05% (two glasses of wine) which is above the drink driving limit for most of Europe. Being awake for 24 hours produces impairment worse than that associated with a blood alcohol concentration above the legal limit for driving on the UK's roads (Fourie et al, 2010a, Dawson and Reid 1997).

Controlling the risks from travel time

10.7 Travel time can contribute significantly to fatigue, and can in turn affect:

- The safety of the rail transport system.
- Staff personal safety at work, e.g. a trackworker working near moving trains or construction plant, working with dangerous machinery, or working at height, and when driving to / from or at work, or the safety of other road users.

10.8 Fatigue risk management systems should therefore include arrangements for assessing and controlling risks from travel time. Employers should:

- Take steps to control their staff 'door to door' time, factoring in shift length/time on site as well as driving time.
- Have booking on arrangements to control the risks, e.g. fitness for duty checks, i.e. that control for staff who are, or could become, unduly fatigued due to travel time (or other issues).
- Make reasonable efforts to ensure that travel times (and sleeping arrangements) are realistic and will not give rise to excessive fatigue.
- Consider the travel time from home when recruiting staff, especially into safety critical roles.

10.9 Assuming 8 hours for sleep, an hour for waking, washing, breakfast etc and a minimum of an hour on returning to home/lodgings for a meal, shower, contacting family and winding down to get some quality sleep, this leaves an absolute maximum of 14 hours between leaving home/lodgings and returning or 'door to door' time. This time has to cover not only work on site but the associated travel there and back. This 'worst case scenario' of 14 hours door-to-door time is used by some companies as the maximum which may be considered on an exceptional basis with extra fatigue controls in place, but even for a single shift, especially a night shift, it is likely to lead to excessive

fatigue. Although better than completely uncontrolled door-to-door travel time arrangements, such a schedule is nevertheless likely to be very fatiguing if carried out repeatedly, and is very likely to make staff unfit, for instance, to drive after their shift. Extra fatigue control measures are very likely to be needed, which may include:

- Avoiding the need for safety critical work towards the end of the shift.
- Extra supervision towards the end of the shift.
- Extra breaks to help relieve fatigue.
- Provision of lodgings near the work site to avoid long travel times, and adequate arrangements to ensure their use.
- Provision of safe transport to and from the place of rest, for instance taxi or provision of a nominated, adequately rested driver.

10.10 As discussed in section 7.110 at booking-on, companies should have fitness for duty checks to ensure that staff reporting for safety critical work are not suffering, or likely to suffer during their shift, from fatigue. The checks should establish whether the individual has had sufficient sleep in the hours before starting work, such that they should be able to carry out their work safely for the whole of their shift - being awake too long before work greatly increases the risk of fatigue later in the work period. RSSB's mini self-assessment tool could provide a useful means for assessing fatigue during fitness for duty checks – see Figure 12.2.

10.11 If remote booking-on procedures are used, random face-to-face checks should be carried out sufficiently frequently to provide visual assurance that individuals are in a physically fit state for work. If a safety critical worker is not fit for work, appropriate control measures (such as providing sufficient rest) should be applied before the safety critical worker commences or recommences safety critical work. The reason(s) why the safety critical worker is or has become fatigued should be established, so far as is reasonably practicable.

10.12 Fatigue risks from travelling can only be properly assessed if adequate information is collected. For staff who work at fixed sites and sleep at home this should be straightforward. For staff whose work site varies, and/or who stay in lodgings when working away from home (for instance infrastructure maintenance staff working in possessions) likely fatigue risks can still be assessed if the following information is collected – this can be incorporated into the booking-on procedure at the site access point.

- location (e.g. postcode/town of lodgings) where they slept before the shift
- time they left the above address

- method of travel to site and name of driver
- shift start time
- shift end time
- location (e.g. postcode/town of lodgings) where they will sleep after this shift
- method of travel back from site and name of driver
- time of arrival at sleeping location.

10.13 Selection processes for staff in control of booking on and site access arrangements should ensure they have the necessary assertiveness and communication skills to effectively challenge work/access by staff who they believe are, or could become, unduly fatigued due to travel time or other issues. They should be provided with clear instructions on the action to take if they believe travel time rules have been or are likely to be exceeded.

10.14 Employers and others with responsibilities to manage staff fatigue should make reasonable efforts to ensure that the travelling and sleeping arrangements are realistic and will not give rise to excessive fatigue. A survey found that eight per cent of freight train drivers reported a journey to their booking on point of more than an hour, and that seven percent of contract trackworkers travelled more than two hours to work (RSSB, 2010 Research Report T699 p13 & p24). The same study found that levels of fatigue reported at the start of a shift were correlated with the amount of time spent travelling to work, with increased fatigue from longer travel times. Free internet journey-planning sites can easily be used to assess whether journeys are feasible in the claimed time if staff are required to record their sleeping locations (postcode / town).

10.15 Employers are recommended to consider the likely effects of travel times when recruiting staff, especially into safety critical roles. Shift workers are more likely to be tired on the drive to and from work than non-shift workers. In particular, sleepiness has been reported to be higher on the drive home after a night shift than from all other shifts. The Royal Society for the Prevention of Accidents estimate the risk of a driver falling asleep at the wheel at 2am to be 50 times greater than at 10am. Factors found to contribute to the risk of falling asleep are previous sleep periods of less than six hours, and travel time over 35 minutes (RSSB, 2010 Research Report T699 p36), though the significance of travel time will obviously vary depending on the shift length.

10.16 Finally, employers should also consider their wider duties to assess and control work-related road risks in their operation, considering guidance from the HSE's web pages on 'Driving and riding safely for work'. This guidance states that as part of an organisation's health and safety arrangements, they must carry out a risk assessment which should look at the journey, the driver

or rider and the vehicle. Hazards that can cause harm to the driver or rider, passengers, other road users and/or pedestrians when driving for work include fatigue and distraction.

10.17 The HSE guidance points out that health and safety law does not apply to commuting, unless the employee is travelling from their home to a location which is not their usual place of work. However, time spent travelling, including commuting, can contribute to fatigue and so should be considered in assessments of fatigue. Some fatigue assessment tools allow commute times to be considered in overall assessments of fatigue risk.

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