Managing rail staff fatigue

6. Plan

6.1 The key actions in the Plan part of the framework are Determining your policy and Planning for Intervention (refer to HSE publication HSG65 for general guidance).

Determining your policy

6.2 Dutyholders should develop a Fatigue Policy. The Fatigue Policy could be part of the overall health and safety management policy or a standalone document. It will provide a framework for the development of the FRMS.

6.3 The purpose of a Fatigue Policy is to set out a dutyholder's intention regarding their aims for managing fatigue, what they will do, who will do it and how they will do it. Those tasked with responsibilities for fatigue should be suitably competent. The policy should also identify targets, prioritise actions and demonstrate senior management commitment to fatigue management. It should be communicated to staff and consulted on appropriately.

6.4 Dutyholders should develop a fatigue policy which:

Recognises that there are human performance risks from fatigue which may cause accidents, ill health, and cost consequences

6.5 The policy should recognise that there are human performance risks from fatigue which may cause accidents, that fatigue cannot be overcome by an individual making more effort to stay awake, and that excessive fatigue and shift work can adversely affect safety and health, with possible financial consequences.

Recognises that a FRMS works best in a 'just' organisational culture

6.6 The policy should recognise that any fatigue management system works best in a 'just' organisational culture where managers and employees can openly share information about fatigue. It should consider the organisation's high level aims in relation to a 'just' culture, emphasising the need for openness, honesty and trust between managers and staff.

6.7 The organisation's expectations on individuals' and managers' behaviour in relation to fatigue should be clear. The status of any relevant company standards and limits should also be made clear, and their relationship to any relevant negotiated agreements with trade unions or other staff representative groups, for instance terms and conditions of employment. In particular, staff and managers should be clear about what to do if they become concerned about their ability to work safely due to fatigue – individuals concerned about fatigue should not feel coerced into working. Refer to Appendix B for more information on a positive safety culture.

Recognises that senior management commitment and leadership is needed for managing fatigue risks

6.8 The policy should recognise that, for its full benefits to be realised, senior management commitment and leadership is needed to support all stages of introducing and implementing the FRMS and should be signed by a person at the top of the organisation – the owner or a director.

6.9 Senior management commitment and leadership is needed to support the creation of a 'just' culture in relation to fatigue, where staff and managers feel encouraged to honestly discuss and progress fatigue issues. Refer to Appendix B for more information.

Commits ongoing adequate resources to manage fatigue

6.10 The policy should recognise that the organisation should commit the resources to develop and sustain the FRMS on an ongoing basis. The resource commitment needed will depend on the nature, size and complexity of the operation and the degree of fatigue risk.

6.11 Once people have been identified to progress FRMS activities, they will need time to develop policies, staff training and education programmes on fatigue, data gathering processes, analysis methods and management procedures to implement, monitor, audit, and guide the FRMS process. Various fatigue risk assessment tools, fatigue reporting systems and databases may be needed, and the organisation should be willing to commit resources to procure and support these.

6.12 Much of this staff time and resource commitment will be 'up-front' while the system is being devised and set up but will reduce as the FRMS matures. However, it is important for senior managers to recognise that an FRMS is not a one-off activity – it is a continuous improvement system that requires an ongoing commitment of resource to support effective, ongoing fatigue controls.

Involves staff in devising, implementing and monitoring fatigue controls

6.13 The policy should recognise that the effective management of fatigue is a collaborative process. Senior management should be committed to involving staff and appropriate staff representative groups (e.g. trade unions) in devising, implementing and monitoring effective fatigue risk control measures. There should be 'buy-in' from staff, and the FRMS policy should recognise that the organisation may need to invest time up-front to help 'sell' the need for, and benefits of, the co-operative FRMS approach to staff and their representatives.

Considers a joint management and staff group and 'fatigue champions'

6.14 Fatigue is an issue which most people have at some stage experienced and can therefore identify with. Organisations have found benefits in bringing together managers and employee representatives to co-operatively improve fatigue controls, for instance by setting up a joint management and staff Fatigue Safety Action Group, or similar. Such a group can help ensure that fatigue controls are sensibly prioritised and co-ordinated across functions and locations and can help demonstrate the company's commitment to involving staff in improving fatigue controls. Such collaborative working also helps build bridges between groups who may traditionally have taken opposing stances on issues, potentially improving wider industrial relations. Some organisations may of course prefer to use an existing joint management / staff group with a wider safety improvement remit to help co-ordinate fatigue risk management.

6.15 Appointing a 'fatigue champion' can help make sure fatigue controls are properly thought through and implemented in a co-ordinated way. They should be a person in a position of authority with operational knowledge, who is enthusiastic and dedicated to developing and maintaining an effective FRMS (Fourie and others, 2010b).

Sets out the expectation on individuals

6.16 Fatigue risks cannot be properly controlled by management alone – the only remedy for insufficient sleep is sleep, so employees and trade unions (or other staff representative groups)

have their own important responsibilities in controlling risks from fatigue. A clear policy outlining fatigue management expectations on individuals, and the role of trade unions and other staff representative groups, helps emphasise that fatigue can only be successfully managed if all parties co-operate responsibly.

6.17 Individual employees will have various duties in relation to fatigue. The employer should, so far as is reasonably practicable, set out relevant expectations on employees, but duties on employees (see section 2) would generally include, for instance:

- Making appropriate use of off-duty periods provided in the working pattern to obtain sufficient sleep to carry out their work safely, including taking future duty times into account when planning their off-duty lives.
- Making reasonable steps to ensure that their sleeping environment, nutrition, use of caffeine, alcohol, drugs and medications, and their travel arrangements do not adversely affect their ability to carry out their duties safely.
- Participating in fatigue-related education and training activities arranged by their employer.
- Informing their manager as soon as possible if they believe that they or a colleague are, or are likely to become, too fatigued to carry out their duties safely.
- Declaring any second job which could reasonably be expected to adversely affect their level of fatigue and their consequent ability to carry out their duties safely.
- Informing their manager if they become aware that they may have a condition such as a sleep disorder which could make them more liable to potentially dangerous levels of fatigue at work.
- Reporting any other concerns they may have regarding risks from fatigue in the operation.
- Co-operating with other reasonable requirements or requests of their employer which are aimed at controlling risks from staff fatigue.

6.18 Some organisations in other industries use 'sleep contracts', requiring significantly more formality in the arrangements between employers and staff regarding sleep obligations. An RSSB report found this more formal approach may have some benefits but also some significant potential pitfalls (RSSB Report T699 App G p13). For the time being, dutyholders considering a formal 'sleep contract' arrangement should approach the concept with caution and be responsive to the complexity of the business and/or task. Efforts at improving the perception of a 'just' company culture, which welcomes and actively encourages reporting of any fatigue concerns, are likely to be of wider benefit than sleep contracts.

Recognise the links between staff resources, workload, fatigue and stress

6.19 The policy should recognise the relationship between available staff resources, workload, fatigue and stress. In simple terms, other things being equal, reducing staffing levels will tend to increase individuals' workloads, increasing the likelihood of fatigue and in some cases work-related stress. Properly considering these likely links will be particularly important during significant organisational changes e.g. restructuring, downsizing, modernising or periods of additional demands (e.g. higher workloads, heavy training needs, high levels of sickness absence).

Sets out how the organisation will collect and use data

6.20 The fatigue policy should set out how the organisation will collect and use data on fatigue and its effects, including the fatigue reporting system for reporting errors, adverse events and concerns which could have a fatigue element.

Describes how the adequacy of fatigue controls will be periodically reviewed

6.21 The fatigue policy should describe how the adequacy of fatigue controls will be reviewed, particularly if there is reason to doubt their effectiveness, for example after an incident or accident where fatigue is identified as an underlying cause or if staff surveys reveal fatigue levels to be high. (See 'Reviewing performance' in section 9 (paragraphs 9.2 to 9.5).

Planning for implementation

6.22 Once the statement of intention has been set out in the Fatigue Policy, dutyholders should plan how they will achieve the aims of the policy. It may be helpful to consider questions such as 'where are we now', 'where do we want to be' and 'how do we get there?'

6.23 'Where we are now' may be answered by gathering information about the systems the organisation already has in place, for example, to carry out risk assessments, design rosters, conduct training, investigate accidents, consult staff, supervise staff, measure health and safety performance. Consider what additional actions have been taken to consider fatigue risk in all these areas.

6.24 Comparing current efforts to manage fatigue risk with suitable benchmarks, for example, this guidance, will enable the organisation to decide 'where do we need to be'. The simplest objective will always be to achieve legal compliance, but some organisations may choose to strive

for higher standards, and this will shape the way they build their FRMS– aiming for excellence reduces the chance of occasionally dipping below bare legal compliance if one or more controls fail.

6.25 Deciding 'how do we get there?' involves practical decisions about how to move the management of fatigue risk forward. For example, organisations might decide to devise new components of the FRMS (e.g. develop and collect data on Key Performance Indicators (KPIs) to enable better monitoring of fatigue risk) or to improve existing ones (e.g. improve the fatigue training provided to roster clerks to aid better roster design).

6.26 These questions may need to be asked at all levels or parts of an organisation, depending on its size and complexity. Planning for fatigue risk management should be coordinated to ensure consistent implementation of the Fatigue Policy to avoid duplication of effort and critical omissions – an identified fatigue champion and/or fatigue risk steering group can play a key role here.

6.27 Answering these questions should enable dutyholders to develop (or amend) and document a FRMS which should include:

- Establishing a reliable fatigue risk assessment process.
- Processes for designing working patterns which minimise fatigue risk.
- Means for consultation with staff when devising, checking, and revising work patterns.
- Plans for training, instructing, and providing information to staff.
- An approach to measuring and supervising levels of fatigue to ensure safe working, e.g. via fitness for duty checks.

Risk assessment

6.28 Dutyholders are legally required to carry out suitable and sufficient risk assessments under ROGS 2006 and other health and safety legislation. The FRMS should outline how fatigue risk assessments are to be carried out, who should carry them out, and under what circumstances, for instance before changes in working patterns, after incidents or reports of concerns about fatigue. All workers should be considered, but safety-critical workers in particular should be clearly identified, as well as those that work shifts, with controls designed appropriately to manage fatigue risk for each type of worker depending on the type of work that they carry out. Arrangements should seek to identify significant factors contributing to fatigue, tracing back fatigue to its underlying causes, by gathering information from diverse sources.

6.29 The risk assessment should be carried out by staff competent in risk assessment with specific knowledge of fatigue risks and associated effective controls. Dutyholders should identify personnel responsible for implementing the risk controls and specify timescales.

6.30 Under ROGS 2006 Regulation 19(4) risk assessment must be documented. Dutyholders must maintain a record of their arrangements for managing the risks arising from fatigue and should incorporate the arrangements into their safety management system.

6.31 Guidance on risk assessment can be found on HSE's website Managing risks and risk assessment at work. ROGS specific risk assessment requirements can be found in 'A guide to ROGS' on ORR's website.

Design work patterns

6.32 Plans for designing work patterns or rosters should consider who should draw up the rosters, whether they are competent to do so (and if not, what training might be needed), what benchmarks should be used, and finally, how the rosters could be risk assessed before implementation, and evaluated once in place.

6.33 With the constant strive for improved efficiency, a significant contributory factor to fatigue can often be resource allocation and the availability of competent staff. If fewer competent staff are available, workload demands on individuals may rise, increasing the likelihood of fatigue. Organisational changes which could impact on staffing resources should be safety validated, and the validation process should consider risks from staff fatigue. Staff should feel able to cope with the demands of their jobs, and systems should be in place locally to pick up and respond to any individual concerns. The organisation should provide staff with adequate and achievable demands in relation to the agreed hours of work. People's skills and abilities should be matched to their job demands. Jobs should be designed to be within the capabilities of staff. Employees' concerns about demands on them should be considered. Minimum staffing levels for safety critical posts should where possible be specified, and arrangements should include contingency arrangements for foreseeable abnormal conditions such as sickness absence, network disruption and emergencies. Employers should not rely on uncontrolled voluntary overtime arrangements to cover normal working periods – all duty turns should be covered in a planned way. For further information, see the Management Standards – Demands section of HSE's website.

6.34 Employers and employee representative bodies should consider whether pay structures could inadvertently be encouraging fatigue. Some pay structures, such as hourly rates, can

promote fatigue more than others by giving employees an incentive to work long hours. More robust fatigue controls may be needed if the pay structure is likely to encourage more fatiguing work patterns. Decisions on fatigue management should be based on reliable information about the patterns which staff actually work. Dutyholders should only use information collected from pay systems if they are certain that it accurately reflects true working patterns. The same applies for monitoring adherence to agreed work patterns.

Communication, consultation, and co-operation with staff

6.35 The FRMS should ensure there are adequate fatigue communication arrangements in the organisation, which ensure that company expectations on fatigue management are communicated clearly to all, are understood by all, and that there are open, easy-to-use channels of communication for reporting any concerns. See Appendix C on Fatigue reporting. An open reporting culture is a key aim – see Appendix B on Safety Culture. Setting up a joint management / staff Fatigue Safety Action Group or similar, tasked with ensuring adequate fatigue communication arrangements, should help (See section 6: Determining your policy, paragraphs 6.2 to 6.21).

6.36 The FRMS should outline how the company will ensure adequate co-operation between management, staff and their representatives (e.g. trade unions) and any other relevant parties in relation to fatigue. Trade union consultation and co-operation will be particularly important if there are conflicts between good fatigue management practices and existing staff terms and conditions of service, which may have evolved historically without full consideration of possible fatigue effects. Consultation is also important when standards and limits are to be changed and dutyholders should take account of the views and experiences of staff affected, either expressed directly or through their trade union / safety representatives.

Train, educate and brief staff

6.37 The FRMS should describe the arrangements made for training staff in fatigue awareness (see section 7 – Train, educate and brief staff, paragraphs 7.98 to 7.101). All staff will need a basic level of awareness training in fatigue but where people have responsibilities for managing fatigue, there should be adequate competence management arrangements in place to ensure that they acquire and retain the appropriate fatigue knowledge and skills. This will be particularly important for supervisors and managers of staff carrying out safety critical work, and for staff who devise and amend rosters.

6.38 Training in fatigue should be provided by a suitably competent practitioner. As per MHSWR, a person shall be regarded as competent where he has sufficient training and experience or knowledge and other qualities. The FRMS should state how opportunities will be taken to check that fatigue training has been embedded and how refresher training or briefings will be implemented to ensure staff awareness of fatigue remains current.

6.39 General guidance on competence management is given in ORR's Railway Safety Publication 1 'Developing and Maintaining Staff Competence'. Here it highlights that it is up to companies to define and select the competence standards for individuals to enable them to control risks consistently.

Manage and supervise staff

6.40 The FRMS should describe the overall organisational arrangements for exercising management and supervisory control over fatigue risks, including the allocation of responsibilities, roles and functions regarding fatigue management. It should include arrangements for the management of overtime (including exceedances) shift exchange, travel time and on-call duties. Finally, the arrangements to ensure the fitness of workers via medical assessment during the selection process and using fitness for duty checks should also be specified.

Measure and review performance

6.41 As part of continuous improvement, the FRMS should be a self-correcting process which periodically reviews the effectiveness of the organisation's existing fatigue policy and the fatigue-related management (e.g. Plan, Do, Check, Act) process. Organisations should establish metrics or key performance indicators (KPIs) to reflect the degree of fatigue in the organisation, to help track the effectiveness of the FRMS over time and for instance between roles, sites etc. The system should also trigger a review of the FRMS when there is reason to doubt the effectiveness of the arrangements, ROGS 2006 Regulation 25(2).

- ← Previous 5. Fatigue Risk Management Systems
- → Next 7. Do