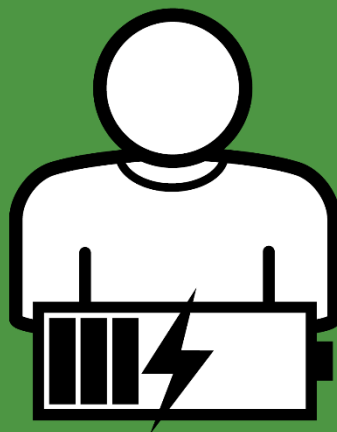


Fatigue Reduction:

Frequently Asked Questions



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1 Overall Objectives

The purpose of the Fatigue standard, NR/L2/OHS/003 is to reduce the risk of fatigue related incidents and ill health within Network Rail and its supply chain to as low as reasonably practicable (ALARP). This process also demonstrates the means by which Network Rail complies with UK Health and Safety legislation.

In addition to the development of the standard and the delivery of the enablers for the programme, education on fatigue plays a crucial role. Education is taking many forms and one of these is the capture and publication of frequently asked questions.

This document is the means of recording real questions that have been asked as the programme progressed. They come from a variety of people in different roles.

The document is divided into 7 sections, these being:

- General – General questions.
- Context – Why are we strengthening Network Rails fatigue Management
- Triggers – What are the triggers and how have they been determined?
- Using the Standard – How do I use the standard in my day to day activities?
- Education – Useful background as education for the need for fatigue management.
- Enablers for Compliance – What business areas will need to introduce to ease compliance.

2 General

2.1 What is Fatigue and how do you define rest?

Fatigue is also known as tiredness, reduced energy, physical or mental exhaustion, or lack of motivation. The RMT define fatigue as “the decline in mental and/or physical performance that results from prolonged exertion, lack of quality sleep or disruption of the internal body clock. The degree to which a worker is prone to fatigue is also related to workload. For example, work that requires constant attention, is machine paced, complex or monotonous can increase the risk of fatigue” Rest is defined in the standard as “Period of time spent not commuting, working at the employer’s request including training courses etc., nor on standby or on-call.” Having a young family may well interrupt a person’s ability to gain quality rest and therefore a discussion with your line manager would be useful in exploring how your fatigue risk can be reduced.

2.2 What is driving the need to change current arrangements and potentially penalise employees?

Since 1988, there have been 14 British Rail/Railtrack/Network Rail incidences relating to fatigue, resulting in a total of 52 fatalities and 612 persons injured. In addition to the above there have been several recommendations relating to the improvement of Network Rails management of fatigue. It should be recognised that the standard does not impose limits to hours but introduces trigger conditions that lead to a fatigue assessment. The standard does not therefore penalise employees but rather provides additional protection.

2.3 Who needs to comply with the standard? Does it only affect safety critical staff?

No, NR/L2/OHS/003 covers all Network Rail employees and all people working on Network Rail infrastructure. It covers our contracting community, if working for/on behalf of Network Rail. It should be noted that a lot of our contractors already have robust fatigue management policies in place or are working towards them.

2.4 I work in Network Rail Consulting. Does this standard apply to me?

No. When working for Network Rail Consulting the Clients processes and procedures will have to be adhered to. However, individuals have a duty to themselves and others to consider their fatigue risk and to put mitigation activities in place.

2.5 How do I Manage Fatigue?

The keys to good fatigue management are eating well, exercising, getting sufficient sleep and rest and staying hydrated. Details of how these can be better achieved are found on the [Fatigue Reduction site](#). To facilitate sufficient sleep and rest, NR/L2/OHS/003, introduces triggers for when door to door timings, working week times, times between work and Fatigue risk Index may be causing a fatigue risk. When the potential for a trigger to be exceeded is determined, an employee and their line manager should assess the fatigue risk and enact actions that can minimise the risk. Please refer to the [Fatigue Reduction site](#) for examples of a good Fatigue Risk Management Plan.

3 Context

3.1 Is this an industry wide initiative or just NR?

This is a Network Rail initiative. However, the industry is taking Fatigue and the management of fatigue risk very seriously. Indeed, the RSSB considers Fatigue as one of the top 5 risks facing the industry. The programme team has worked closely with outside bodies such as the supply chain, Train/Freight Operating Companies and the RSSB.

3.2 What is being introduced and why?

The reasons for the introduction of strengthened fatigue management is four-fold. These being:

- It's the right thing to do and reinforces the duty of care for our employees.
- One accident due to fatigue is one too many. We wish to reduce the occurrence of accidents.
- Fatigue has been identified to potentially having a similar effect on alertness to alcohol. We have a Drugs and Alcohol Policy for good reason.
- To assist in compliance with legislation.

The key elements introduced are:

- Strengthening of our management of Fatigue Risk by having clearly defined trigger points for when a Fatigue assessment needs to be completed.
- Fatigue Education. How to recognise it, the causes, the effects and how it may be combated.

NR/L2/OHS/003 introduces conditions that trigger a fatigue assessment and potentially a fatigue management plan. Triggers include:

	Trigger Level	Trigger	Minimum Limitations to be imposed	Action if triggered
Working Week (2 stage trigger)	1	60 Hours	No lookout duties, No IWA, No safety critical duties without additional controls, Minimum 12 hrs rest before next period of work.	1. Assess fatigue. 2. Identify and implement controls. 3. Document findings and actions.
	2	72 Hours	No lookout duties, No IWA, No safety critical duties, No management of trains, No driving duties, No OTP operation, No OTM operation, Minimum 24 hrs rest before next period of work.	
Working Day Length	General	More than 12hrs	To be agreed following fatigue assessment.	
Rest Period	General	Less than 12hrs	To be agreed following fatigue assessment.	
Continuous Working Pattern	General	More than 13days/nights	To be agreed following fatigue assessment.	
Daytime FRI	General	35 or more	To be agreed following fatigue assessment.	
Nighttime FRI	General	45 or more	To be agreed following fatigue assessment.	
FRI Risk Score	General	1.6 or more	To be agreed following fatigue assessment.	
Door to Door Time.	General	14 hrs or more	To be agreed following fatigue assessment.	

There are other conditions such as flexible working requests, return from long term absence etc. For the full understanding of all things that can trigger a fatigue conversation and assessment we would recommend that the full standard is read.

3.3 Why have the triggers been chosen?

Scientific research, ORR, RSSB and HSE guidance have all contributed to the development of the triggers. Each trigger has been carefully considered to provide the best opportunity for an individual to reduce working fatigue and gain as much quality sleep and rest opportunities as possible.

14 hrs door to door - The optimal time for the body to carry out its repair activities is 8 hours. Research also suggests a preparation time and wake up time of an hour before and after sleep. This gives 10 hours of time for sleep activities. You can therefore see that 14 hours are left, and the aspiration of 12 hours allows for travel time.

12 hrs between stopping work and starting again – this ensures that the business provides the best opportunity for an individual to achieve the 8 hrs sleep, an hour either side for wind down and waking up and a couple of hours rest period before preparing for sleep.

60 hr week – Taking into account a working time of 12 hours (leaving 12 hours rest in between) and it can be seen that over a 5-day working week the number of hours worked will be 60. Anything over this and the individual will be likely to be exceeding one of the other triggers.

3.4 There are huge costs attached to this you are going to have to recruit more staff. We are concerned establishment will be the last thing to be considered?

During the standards development a resource gap analysis was undertaken to understand where working hours outweighed resource availability and may need to be addressed in order to provide a mitigation to reduce the risk of fatigue. This has been verified by HR departments within each business area. The business has considered the possibility of additional recruitment as a fatigue mitigation measure and sums set aside for this recruitment.

3.5 What is going to be the impact on our 3rd party contracts already in place? This is going to push up costs. Has the business considered this?

The compliance date for the standard is October 2022; a period of 3 years since its publication. Many contracts running now will not be operational for long after October 2022. ISLG, Industry Safety Leadership Group have been involved in the development of the standard and the business has started transition. On top of this in 2019, new procurements started to signpost the new standard and its requirements. The management of fatigue is not a new requirement on businesses. It is an integral part of health and safety legislation and therefore should not be too impactful on costs. Indeed, if a contractor significantly increases its costs due to NR/L2/OHS/003 then the question arises were they working unsafely before?

4 Triggers

4.1 Does the 12-hour rest period include driving?

We are not mandating minimum of 12hrs rest, but 12hrs between shifts offering the best opportunity for quality rest. Rest is defined in the standard as “Period of time spent not commuting, working at the employers’ request including training courses etc., nor on standby or on-call.” It is key for everyone that they make the best use of this time to achieve quality rest. It is the time between leaving work and starting work and does not include travel time.

4.2 There is a figure which is missing, should be a limit on the number of consecutive days you work, for example. Sundays are also outside the working week so how do you plan and manage this.

NR/L2/OHS/003 Module 3, Exceedance Management, states that an exceedance shall be declared if a person works more than 13 consecutive turns of duty in 14 rolling days.

4.3 We seem to have glossed over 60 hours, is that a limit?

The 60 hours is a Level 1 trigger point. If this trigger is likely to be exceeded, then a fatigue assessment shall take place and an individual Fatigue Management plan will have to be developed and implemented. For Level 1 and 2 exceedances, the standard provides minimum controls that are to be applied.

4.4 Why are the hours door to door? Are you limiting where I can live in relation to the work place? Does it take into account HOW people get to work?

There is a lot of scientific research behind the guidelines issued by ORR, RSSB, HSE and others. This research has been considered when developing the principles. For the body to carry out the numerous activities it does when we are asleep it needs to have, not only a suitable “Sleep time” (8 hours’ is the recommended duration) but also at least an hour preparation time and an hours’ wake up time. Research also shows that travelling to your place of work, however this is carried out, does not give the required rest that the body and mind needs. Lots of factors need to be considered when managing fatigue, including mode of transport used to get to work. The key element is that the discussion between an individual and their line manager takes place and outcomes are enacted.

4.5 I work more than 48 hours per week and haven’t opted out of working time. What will you do about this?

The Working Time Directive is covered in separate legislation. NR/L2/OHS/003 covers the management of fatigue risk and applies to everyone. Within the standard are details of the triggers which, if or have the potential to be exceeded, will necessitate a fatigue assessment and potential management plan.

4.6 FRI is not the complete answer it is part of a solution, please remember this.

We agree, and we consider FRI to be PART of the solution, combined with the other requirements of the standard (trigger points). Other mitigations to fatigue also need to be explored, discussed and developed as part of a fatigue assessment and/or management plan.

4.7 On the FRI there are a fatigue figure and a risk number you only have the fatigue figure on this.

NR/L2/OHS/003 Module 3, Exceedance Management, states that an exceedance shall be declared if:

- A person works when they are expected to exceed a fatigue risk index (FRI) fatigue score of 35 during day-time or 45 during night-time hours;
- A person works when they are expected to exceed an FRI risk score of 1.6 (Regardless of day-time or night-time working).

5 Using the Standard

5.1 What work has been carried out to understand the impact on the business?

Change Impact Assessments (CIA) have been carried out to understand the impact. This is coupled with a resource gap analysis to determine if additional resources are required. CIAs are a very important element of the programme and have been used to shape the final standard and support tools.

5.2 The current standard is not being followed out there in the business, why will the revised standard be any different?

This is a great opportunity to “protect people from themselves” and to make sure we have got a standard in place which works. We have worked hard to ensure that the revised standard is one that the business can adopt and use. A significant element of the programme has been Change Impact Assessments. (CIAs). These have helped to identify which elements of the current standard are not being followed and what the change impact will be.

5.3 The timescales are lengthy so there will be uncertainty in the interim, you need to manage a consistent message to prevent against abuse and misunderstanding.

We completely agree and have been working hard to ensure a consistent message is provided throughout all fatigue related documentation. Fatigue leads throughout the organisation have been involved in the development of the standard and the supporting documentation and they have been responsible for the local messaging and documentation.

5.4 How will we make sure there are rest breaks for everyone?

NR/L2/OHS/003 does not mandate rest breaks as the frequency and duration of these should be determined by specific business areas. However, the educational materials do mention that the

provision of suitable rest breaks and welfare facilities are a key component in the management of fatigue.

5.5 How does the programme cater for individuals who require what is considered as a convoluted commute due to disability?

This scenario could raise the need for a fatigue conversation and commute times should be considered in any assessment of fatigue risk. The programme has worked closely with all of Network Rails D&I networks to ensure everyone's fatigue is managed in an appropriate manner.

5.6 How would an individual's home circumstances be considered?

If it is believed that an individual's home circumstances may be putting them at risk of fatigue, then this must be discussed in a fatigue conversation and subsequent assessment. Caring duties (children, family etc) are recognised as a potential cause of fatigue and as such, if fatigue is causing or likely to cause concern then this must be discussed. All causes of fatigue are particular to the individual. Line Managers need to provide a caring environment for the individual and an open forum for discussions. Should a Line Manager need further assistance then the usual channels are available via HR Direct and D&I Networks. It may be that the parties concerned (line manager and employee) agree to certain actions outside of the work environment that will help the individuals fatigue risk.

5.7 What time does a day shift start and end, and what time is a night time worker considered as?

This is defined in individual Terms and Conditions and not NR/L2/OHS/003. The standard does not amend any Terms and Conditions.

5.8 We are expected / told to put 35 hours in our timesheets which does not accurately reflect how much time we really work; how does the programme ensure we record our actual hours worked?

Actual hours should always be booked / recorded across the business. NR/L2/OHS/003 provides the basis under which fatigue risk should be considered. The responsibility for implementing the requirements of the standard and monitoring the efficacy of the arrangements in place sits with the Functional Head. Within the standard the functional head is defined as 'A person who has management authority over an organisational unit such as a department within the businesses.

5.9 How will fatigue be managed for non-safety critical members of staff?

The approach to fatigue management for both safety critical and non-safety critical staff is the same and is defined within NR/L2/OHS/003. The responsibility for implementing the requirements of the standard and monitoring the efficacy of the arrangements in place sits with the Functional Head. Within the standard the functional head is defined as 'A person who has management authority over an organisational unit such as a department within the businesses.

5.10 Is sending emails / reading emails late at night after work considered in working time?

NR/L2/OHS/003/05 details what is considered working hours with relation to fatigue management. Reading and sending emails outside of work hours is not the best way to obtain quality rest and manage fatigue. The responsibility for implementing the requirements of the standard and monitoring the efficacy of the arrangements in place sits with the Functional Head. Within the standard the functional head is defined as 'A person who has management authority over an organisational unit such as a department within the businesses. It is these arrangements that should cover the use of email outside of working hours. Care should be taken using electronic devices late at night as the 'Blue LED' may disrupt circadian rhythms.

5.11 You will need an escalation process if managers are using fatigue punitively, for example refusing overtime.

Existing company processes should be used if it is believed that a manager is using fatigue as a punitive measure. In the first instance it should be raised with the line manager but if this is not possible then the issue can be raised to the line managers manager or the local HR Representative. Alternatively, the Speak Out service can be used. If it is believed that there is an immediate safety concern, then the WorkSafe procedure should be invoked.

5.12 You talk about 12 hours between shifts, but 9 hours is allowable in an emergency.

NR/L2/OHS/003 introduces 12 hours as a trigger for a fatigue assessment and potential Fatigue Risk Management Plan. In the circumstance mentioned, the individual should be assessed for the risk of fatigue and suitable controls agreed and implemented. NR/L2/OHS/003 does not limit the hours someone can work.

5.13 On-call. We are seeing a big step up in the way in which we use on call, on call seems to be an immediate issue and there seems to be an increase in on call demands across NR. What does the standard say for on-call?

The requirements for on-call are covered within Module 5 of NR/L2/OHS/003. A fatigue management plan will need to be produced for any member of staff on-call. This module also defines what is considered being 'On-Call'.

5.14 What is meant by the term "Working on Network Rail Infrastructure"? Our contractors are working on creating and amending Network Rail software systems, but they will never set foot physically on Network Rail infrastructure. Do they need to comply with the standard?

Yes. NR/L2/OHS/003, Fatigue Risk Management, Section 2, Scope, states:

This manual specifies the principles for managing fatigue and working hours. It applies to:

- all Network Rail employees regardless of their role; and
- those contractors whose employees work on Network Rail managed infrastructure, assets and systems.

The inclusion of "Assets and Systems" does indeed mean the contractors in your example would need to be compliant with the standard for the duration that they are working on a Network Rail 'system'.

5.15 What kind of measures can a line manager introduce to manage someone's fatigue issue?

Measures will largely depend upon the individuals' specific causes of fatigue and specific circumstances. However; generic things that could be considered, (in no particular order) would be;

- Provide a caring environment for the individual and open forum for discussions around fatigue risk and possible mitigations
- Flexible working
- Reasonable adjustments, where they apply
- Sharing of some work activities with other members of the team
- Overnight accommodation close to the site of works
- Appropriate and targeted breaks in a peaceful and quiet environment
- Reappraisal of deadlines to smooth out work pressures
- Agreeing a set of rules within the team such as no emails from 7pm to 7am
- A discussion with the individual to investigate if there are any actions they can take in their personal life to ease a situation
- Investigate if there is a technology solution that could assist
- Consider the mode of transport or if a car sharing group could be established
- Provide Fatigue education and point the individual to the Fatigue Reduction site - the [Fatigue Reduction site](#)

5.16 How will fatigue of the workforce be measured? Will we be required to wear monitors when at home?

No, people will not be required to wear monitors. There is no single measure of fatigue as it is a very complex and subjective issue. Most assessments are self-report measures and the educational materials are provided to help individuals understand the symptoms and signs. To help individuals determine if they may be exposing themselves to the risk of fatigue a fatigue assessment questionnaire can be found on the [Fatigue Reduction site](#).

5.17 Will the programme team monitor Fatigue data across all the routes, how will fatigue measures be followed up?

It is not just Routes that will require monitoring of fatigue data. All areas of the business should accurately record fatigue absence. OTL already provides the functionality for recording fatigue absences. Details of this is included within the guidance material found on the Fatigue Reduction

SharePoint site. Exceedance data is also captured, and it is a requirement of the standard that business areas widen this to exceedances of all staff.

5.18 I live 3 hours from my place of work. Does this mean I will have to relocate?

The impact of your travel to and from your place of work should be considered as part of an individual or group risk assessment. Appropriate mitigations will be discussed and agreed.

5.19 What will happen if I exceed the maximum shift length? Does this mean the end to 12-hour shifts? What happens if the need to work longer occurs in a shift?

The revised standard has not defined a maximum shift length. There are, however, trigger points that, if exceeded, will necessitate either the group or individual having a Fatigue conversation and assessment with their Line Manager and potentially a Fatigue Management Plan being agreed and implemented. 12-hour shifts can be worked but, when travel time is taken into account, may necessitate the need for a Fatigue Assessment and/or management plan. We are aware that the need to work longer does occur during a shift. In this situation the Fatigue implications on the individual will have to be discussed and the Fatigue Management plan either written or amended if one is already in place.

5.20 During Strike Cover what happens to those providing cover?

The trigger points will still apply and therefore a Fatigue assessment and Management Plan may be required. It's probably worth noting that the introduction of a fatigue management plan will provide a means to record potential risks and controls when this type of work is undertaken, not something that's currently done.

5.21 I regularly get tired. Can I use this as a reason not to turn up for work?

If an individual is, or believes they will, suffer fatigue then they should raise this with their line manager and a Fatigue Assessment take place. This may lead to a Fatigue Management plan being agreed and implemented.

5.22 What happens if I need to travel to a different location for the day of work which is further away than my normal location? Will my door to door increase?

Yes. Door to Door is defined as "A period of time identified as the combined total of travel time from a place of rest (e.g. home or lodgings), work time and return to a place of rest".

5.23 If I work in an office-based role, have had a busy day and decide to work late till 8pm to finish off some work. Am I not allowed to return until after 8am the next day?

Yes, that is correct. You must allow 12 hours between leaving work and returning. This is to ensure that you can obtain some quality rest.

5.24 If I travel a lot with my role, and have decided to travel after a day in the office / working, does this impact my start time the next day?

Yes, you should allow 12 hours between your shifts and your travel time to another location is classed as working time. You may also be exceeding the 14 hours door to door trigger by driving home after a shift.

5.25 The Fatigue management plan - is it something which needs to be imposed by the manager?

The Fatigue Management Plan needs to follow the protocol set out in the standard, but the intention is not to develop a plan which a manager imposes rather one that is mutually created, and one where an employee has the right to challenge any outcome. Employees also have the ability to request a fatigue assessment and fatigue management plan.

5.26 There is no way the principles will align with available possession times. How is the programme making sure they do?

If available possession times result in not being able to apply a principle, then there will be a need for a Fatigue Management Plan. This should be a last resort however as Fatigue should be considered at the start of planning.

5.27 If work planning was more effective the issue of fatigue would be minimised!

We wholeheartedly agree with this view and support the principle that effective planning improves the opportunity for alertness. Whenever work is planned, the impact on a person's fatigue levels should be considered. This should include the timeframes for the work, the type of work (physically and/or mentally fatiguing) and the number of individuals available.

5.28 Will I be stopped from working overtime?

Implications of working overtime will have to be assessed on an individual by individual basis. This assessment may indicate the need for a Fatigue assessment and potentially a fatigue management Plan.

5.29 Front line managers are already stretched, how do you expect them to manage the proposal for individual and group risk assessments? Are you planning to recruit more managers?

Business areas do have the ability to recruit more staff as a means of reducing their fatigue risk. The decision to recruit, the size of recruitment and the roles to be recruited will be determined by the business area itself. To aid this decision-making process a 'resource gap analysis' process has been carried out centrally and the findings passed to the business. It should be noted that a fatigue assessment and potentially a management plan are required only if a trigger is exceeded. There is therefore an incentive to plan workloads such that triggers are not exceeded.

5.30 Managers will sign off any exceedances to keep the job running, how are you going to combat this and make sure we have the right number of people in place to do the job required?

Business areas do have the ability to recruit more staff as a means of reducing their fatigue risk. The decision to recruit, the size of recruitment and the roles to be recruited will be determined by the business area itself. Education is a key element of the programme and there is a large amount of guidance materials on the Fatigue Reduction SharePoint site. These will help managers understand the risks they are putting on their employees and themselves if they pay 'lip service' to the subject of managing fatigue.

5.31 When do you think it will be safe to say I am fatigued, I cannot come to work?

Network Rail has a duty of care to its employees and therefore supports a safe environment for all to raise their concerns around fatigue. Similarly, all of us have a duty of care to ourselves and our colleagues to ensure Everyone Home Safe Every Day. Anytime therefore is a safe time to raise fatigue concerns. Your line manager will treat your concerns fairly and will discuss what actions can be taken. Not coming into work may be a control that you both agree on although there are many other controls that could be pertinent. It all depends on the individual circumstances.

5.32 I am expected to lodge away from home which causes fatigue as I am not able to sleep during the day. What will the company do about this?

This needs to be raised with your line manager and there needs to be a conversation about what suitable alternatives to how the fatigue risk can be managed, including potential change in lodgings where required. Your team may be able to work closely with hotels to create a night worker friendly place of rest (e.g. use of a "quiet wing", room cleaning rosters changed, gym facilities and catering open at irregular times, health meal options, etc.).

5.33 How will the programme ensure that fatigue is measured / monitored on last minute shift changes?

A requirement of NR/L2/OHS/003 is for a Fatigue Assessment to be carried out if it is believed that a trigger condition may be exceeded. Local processes will determine who will carry out this assessment.

5.34 We would like all those rostering and representatives trained in the FRI tool is this going to happen?

NR/L2/OHS/003 does not change the way rosters are produced. What it does introduce is the need to consider fatigue for those who are going to be working the roster. As part of the educational material there has been produced a 'How to Guide' for the FRI tool, both the HSE tool and the Click Roster embedded FRI tool.

5.35 I understand information will be pulled out of Click Roster. We don't use Click Roster so how will our information be gathered? How will managers' workload and hours be looked at?

Click Roster will be used where applicable and used. The business is looking at potential for a separate system to gather data that will provide managers with business information for when individuals have or are likely to exceed a trigger. Local business areas are empowered to develop their own methods of data capture.

5.36 How will you involve trade unions in the FRI process?

There is no 'FRI' process. Calculation of the FRI is currently within existing rostering processes and these do not change. The involvement of the relevant Union Health and Safety Representative has been additionally included for consultation on the roster in relation to the fatigue risk and provided with the FRI assessment output.

5.37 Does the FRI calculator consider health conditions or stresses on the body during transitioning, take age and/or mental health into account?

No, it does not. The FRI tool is a HSE tool and is, by its nature, very generic. It cannot possibly cater for every potential possibility. However, the outcome of the tool is only one element that a Line Manager and employee should consider when determining fatigue risk. All causes of fatigue are particular to the individual. Line Managers need to provide a caring environment for the individual and an open forum for discussions. Should a Line Manager need further assistance then the usual channels are available via HR Direct and the D&I Networks.

5.38 Some areas of the business do not use the FRI calculator, how will they assess fatigue? Are you using the one on the government website as this can be manipulated?

The tool that enables the FRI assessment, and is recognised by Network Rail, has been developed and recommended by the Health and Safety Executive (HSE) and can be located via their website: www.hse.gov.uk/research/rrpdf/rr446cal.xls. Guidance on the FRI tool can be found on the [Fatigue Reduction site](#). The standard also requires a greater degree of health and safety representative oversight including review of the FRI information.

6 Education

6.1 How are you going to educate line managers on Fatigue?

We've provided a suite of educational resources on the [Fatigue Reduction site](#) created for People Managers; like guides on 'How to Manage your Team's Fatigue' and 'Fatigue Conversations'. Alongside this, local Fatigue Reduction leads will run people manager workshops; interactive peer to peer training sessions, created by Network Rail Training.

6.2 I regularly work more than a 60hr week and am not fatigued. Why will my hours and hence money be curbed? Will I be compensated?

The standard does not curb working hours but a working week in excess of 60 hours, or more than 14 hrs door to door will trigger the requirement for a Fatigue Assessment. It should be noted that scientific research has shown that most people who are suffering from fatigue may not recognise it as the effects have become their norm. Only when someone has sufficient rest and sleep are the benefits realised.

6.3 You say fatigue has a similar impairment to alcohol and drugs? I don't necessarily agree. How do you measure fatigue impact? How will you measure if someone is fatigued? Where is the science in this?

Fatigue is very subjective and is different for everyone. Currently there is no simple means of 'testing' for fatigue like there is for drugs and alcohol. The symptoms of fatigue are easier to spot however. These include excessive yawning, microsleeps, loss of concentration, irritability and so on. We've provided a suite of educational resources on the [Fatigue Reduction site](#) for educational purposes covering fatigue and how to spot it in yourself and others. Alongside this, local Fatigue Reduction leads will run people manager workshops and interactive peer to peer training sessions, created by Network Rail Training.

Key academic studies relating to fatigue include:

- Being awake for around 17 hours has been found to produce impairment on a range of tasks equivalent to that associated with a blood alcohol concentration above the drink driving limit for most of Europe. (DFT 2010a p26, Dawson & Reid 1997).
- There is evidence that human performance deteriorates significantly when people have been at work for more than 12 hours
 - Relative to eight-hour shifts, 10-hour shifts were associated with a 13 % increased risk, and 12-hour shifts with a 27 % increase (T699 p29, Folkard et al 2006).
 - Staff regularly working 12 hours or more per day were found in a large US study (Dembe et al 2005) to have a 37 % higher injury rate compared to other staff
- The incidence of health problems such as sleep, gastrointestinal and cardiovascular disorders has been estimated to be greater in shift workers than day workers (RSSB T699 p37; Costa 2003; Knuttson 2003; Harrington 2001).

6.4 How do you know I need 8 hours sleep? I only have 5 per night and I don't feel fatigued.

People who can get by on four hours of sleep sometimes brag about their strength and endurance. But recent scientific studies show that a lack of sleep causes many significant changes in the body and increases your risk for serious health concerns such as obesity, disease, and even early death. Sleep is an important function for many reasons. When you sleep, your brain signals your body to release hormones and compounds that help:

- decrease risk for health conditions
- manage your hunger levels
- maintain your immune system
- retain memory

For further information on the science of sleep and fatigue please also refer to the [Fatigue Reduction site](#)

6.5 I get the train to work so can rest then. Is this considered as rest?

No. Rest is defined in the standard as "Period of time spent not commuting, working at the employers' request including training courses etc., nor on-standby or on-call."

However, in discussions in the Fatigue Assessment, the mode of transport should be considered because the risk will vary depending on what that mode of transport is. ORR guidance states 'There is evidence that time spent travelling to and from work does not provide rest in the same way as time spent at home. It is important to monitor long travelling times to and from work and consider how this can reduce the opportunity for daily rest and so increase the risk of fatigue. Where a large proportion of a group of safety critical workers have long travelling times, this ought to be taken into account'.

6.6 We should be able to say you cannot work as you are too tired.

Agreed. A key outcome of the programme is the creation of Network Rail being a safe place to declare being fatigued and asking for help. Ideally this should be raised before fatigue becomes an issue. This can be done by the individual or the line manager considering upcoming workload and/or personal circumstances (i.e. new born baby). However; not coming to work should be a "last resort" option.

6.7 You need to take in to account seasonal conditions, it is harder to sleep in summer when on nights that in the winter.

We note and agree with your comments on weather and sleep as a variable for sleep rest and impact. There is an excellent book out by Matthew Walker called why we sleep. Impact of seasonal patterns and shift sleep patterns which has been part of sleep research taken into account when developing the standard.

6.8 The company should not be asking individuals to take responsibility for their own fatigue? Why is this an individual's problem?

Section 7 of the Health and Safety at Work, etc Act 1974, requires employees to take care of the health and safety of themselves and others; and to cooperate with the employer where health and safety initiatives are implemented to protect the employees. It's a requirement that employees attend work in a fit state to undertake their duties, this includes being in an alert state that reduces the likelihood of incidents/accidents occurring. Notwithstanding the requirements of Health and Safety legislation the personal health and wellbeing benefits an individual will experience by managing their fatigue risk should be a strong motivator.

7 Enablers for Compliance

7.1 Where are we going to find all the extra recruits? They simply are not out there in the market.

As part of the resource gap analysis work carried out and the subsequent recommendations, the market place resilience has been considered. NR/L2/OHS/003 compliance date is not until October 2022. Part of the reason for this long transition period is the need to minimise the effect of recruiting potentially large numbers of recruits.

7.2 What do the Unions think of this?

We have developed a novel framework for engaging with our trade union colleagues. TU Health and Safety Reps have been involved in the development of the standard by being integral members of the working group. In addition, all trade union IR representatives have been briefed at each publication of a module and feedback obtained. These sessions have proved invaluable in focusing on a collaborative approach to fatigue management.

7.3 Trade Unions have never agreed to the Fatigue Risk Index score being used to determine whether a roster is acceptable or not? Why is this part of your plans?

The Fatigue Risk Index score exists as part of the existing standard. It is the HSE recognised means of assessing fatigue risk. There has also never been a standardised means of benchmarking fatigue risk within the railway industry. The FRI is one of several measures that are used to determine a risk of fatigue and should not be used in isolation.

7.4 You could capture peoples working time through Sentinel if you got everyone to have it. Is this part of the plan?

There are several ways that time is or can be captured. (OTL, Sentinel, Click Roster). Most of the business use some form of system/process but not all. The programme has raised the issue with the business that one of the enablers for good fatigue management is the understanding of the hours being worked by individuals. The business is considering all options.

7.5 How do managers log their hours?

This is not just for managers but for all employees. If hours are not recorded a means of capturing time will need to be utilised. However, for Fatigue Management a means of understanding projected hours is also beneficial to allow for assessments to be pro-active and not re-active.

7.6 At present I don't fill in a timesheet. Does this mean I will need to do so in the future?

There needs to be a way for the business to capture an individual's time. Without this the need for a Fatigue Assessment cannot be determined.

7.7 PTR&R allows us to travel up to 75 minutes each way, with a 12-hour shift this is 14.5 hours door to door. Are you planning to renegotiate PTR&R.

No. The 14 hours is not a limit but a trigger point for the agreement and implementation of a Fatigue Management Plan. A line manager will take travel time into account when determining the need for a Fatigue Management Plan. It should be noted that a Fatigue Management Plan does not have to be agreed and documented for every exceedance occurrence. It can be produced and reviewed at regular agreed periods.

7.8 Signallers rosters and allocation of overtime are determined by National Rostering Principles. Are you planning to renegotiate these?

No, the National Rostering Principles are not being revised. What the standard introduces is the need for fatigue to be considered and good fatigue risk management introduced if there is deemed to be a fatigue risk.

7.9 What are you going to do about the additional hour in signaller's terms and conditions of employment? Is this going to be removed?

Just like anyone's actual hours of work, there will need to be a fatigue assessment and potentially a fatigue risk management plan if a trigger point is exceeded.

7.10 ECOs self-roster. What plans do you have to make ECO rosters compliant?

NR/L2/OHS/003 provides the basis under which fatigue risk should be considered. The responsibility for implementing the requirements of the standard and monitoring the efficacy of the arrangements in place sits with the Functional Head. Within the standard the functional head is defined as 'A person who has management authority over an organisational unit such as a department within a business.'