# Managing rail staff fatigue

## 14. Appendix E: Definitions and abbreviations

## Definitions

14.1 Regulation 2 of ROGS 2006 gives the full legal definitions of most of the terms used in the regulations. This section provides a simple explanation of terms as used in this guidance. These explanations do not replace any full legal definitions.

**Alertness** - a state of being awake, aware, attentive and prepared to act or react.

**Block of consecutive shifts** - 2 or more consecutive shifts, without interruption by a rest day.

**Change to existing working patterns** refers to the working pattern of people undertaking work, and includes:

- Increases in daily or weekly hours of work, increases in the number of consecutive shifts worked before a complete day's rest is taken, reductions in the length or frequency of intervals before (and breaks during) periods of duty, or changes in the timing of breaks taken during periods of duty.
- Changes in shift patterns, such as a change from fixed shifts to rotating shifts, a change in the frequency with which shifts rotate, increased variability in start and finish times, or the introduction of a split-shift system.
- Other changes in the organisation of working time that may affect performance, such as an increase in the amount of time spent carrying out safety critical work (as opposed to other activities) or in the amount of time spent carrying out safety critical work requiring continuous vigilance (as opposed to other types of safety critical work).

Circadian rhythm - the 24-hour natural, internal clock in our brain that controls alertness and sleepiness. It is based on light changes in the environment.

Day shift - shifts where all work hours fall between 07:00 and 19.59

Exceedance - exceeding or other non-compliance with a standard or limit.

Existing limits:

- For operations already in existence, the limits already established in that operation.
- For new operations, limits that do not exceed the limits applying to people carrying out the same or similar work in comparable established operations.

Fatigue - a state of reduced mental or physical capability resulting from sleep loss or extended wakefulness, disruption to circadian rhythms (the 'internal body clock'), workload (mental and/or physical activity) and/or prolonged working that can impair alertness and the ability to perform safely and/or effectively.

Fixed shifts - that workers work the same shift on a permanent basis.

Late shift - shifts where all work hours fall between 20:00 and 02:00

Night shift - any duties which covers the period 00:00 to 05:00 inclusive.

On call - waiting to respond to an emergency call out or answering a query from people working in the field. Being on call (or on standby) means an employee is expected to be available to carry out working duties if their employer contacts them, usually at short notice.

Rest - a continuous period between 2 shifts during which the operator is free of all duties.

Rest day - continuous rest of 24 hours, including a full night's sleep. The day following a night shift cannot be counted as a rest day.

Rotating shifts - workers work a pattern of changing shifts e.g. rapid rotation - two days per shift type: slow rotation approximately 21 days per shift.

Shift (or period of duty) - a continuous period beginning when the employee reports for work and ending when he is free of all duties. Meal and rest breaks within the shift count towards the total length, as does overtime. However, commuting times do not unless specified.

Split shift - one duty period that has two distinct work periods separated by a long break. Where a split-shift system is in operation, the total length of time between the start of the first and the end of the last part of that split shift counts as one period of duty for the purpose of this guidance.

Very early or early shift - shifts starting between 04:00 and 06:59.

# Abbreviations

- ATP: Automatic Train Protection
- AWS: Automatic Warning System
- CASA: Civil Aviation Safety Authority
- DERA: Defence Evaluation and Research Agency
- DfT: Department for Transport
- DVD: Drivers Vigilance Device
- ETCS: European Train Control System
- FF: Fatigue Factor
- FRF: Fatigue Report Forms
- FRI: Fatigue and Risk Index tool
- FRMS: Fatigue Risk Management System
- HSE: Health and Safety Executive
- HSL: Health and Safety Laboratory
- HSWA: The Health and Safety at Work Act
- IARC: International Agency for Research on Cancer
- KPIs: Key Performance Indicators
- KSS: Karolinska Sleepiness Scale
- MHSWR: The Management of Health and Safety at Work Regulations
- MRSF: Managing Rail Staff Fatigue
- NTS: Non-Technical Skills
- ORR: Office of Rail and Road
- POPMAR: Policy, Organising, Planning, Measuring performance, Auditing and Review
- RAIB: Rail Accident Investigation Branch
- RM3: Risk Management Maturity Model
- ROGS: The Railways and Other Guided Transport Systems (Safety) Regulations
- RSSB: Rail Safety and Standards Board

- SMS: Safety Management System
- SPAD: Signal Passed at Danger
- TPWS: Train Protection and Warning System
- WTR: The Working Time Regulations


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