

Fatigue Risk Management



Sleep is important for our physical wellbeing and our mental wellbeing and a lack of sleep can have the same impact on the body as too much alcohol. Fatigue is the body's response to a prolonged lack of sleep and is a root cause in many workplace incidents. Fatigue Risk Management can help employers manage the risk of harm caused by fatigue.

Introduction

Chernobyl, Herald of the Free Enterprise, Clapham Junction and Exxon Valdez, some of the biggest disasters of our time, all had one thing in common; fatigue.

In March 2020 Renown Consultants Ltd were found guilty of offences under the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999 when two employees were killed in a road traffic accident after the driver fell asleep at the wheel. This was the first time the Office of Rail and Road (ORR) has prosecuted a company for deficiencies in fatigue risk management.ⁱ

Discussion

What is fatigue?

Often when people think of fatigue, they think of being tired or sleepy. But fatigue isn't simply about not getting enough sleep or being a little bit tired. Fatigue describes the body's response to a prolonged period of sleeplessness, physical or mental exertion, or a combination of these.

Fatigue has a similar impact on the body to alcohol: impaired judgement; slow response times; lack of alertness; distraction; reduced ability to process information; lapses in memory; poorer perception of risk; lack of co-ordination. It is easy then to see why fatigue is often the root cause of accidents in the workplace, which the Health and Safety Executive (HSE) estimates at £115-240 million per year in the UK.ⁱⁱ

What causes fatigue?

Our bodies go through a daily cycle, known as the circadian rhythm. This cycle naturally decides when we are most alert and most sleepy and is affected by various environmental factors including light and temperature. In a normal circadian rhythm, sleepiness peaks in the early hours of the morning.ⁱⁱⁱ Anything that disturbs our circadian rhythm can have an impact on fatigue, such as:

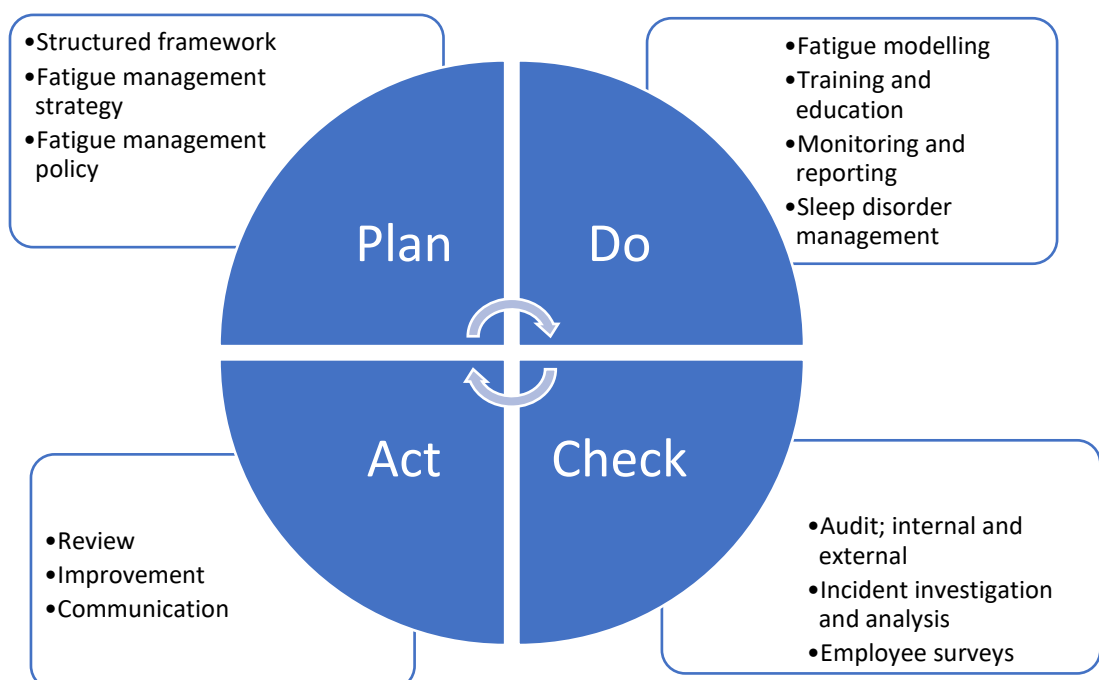
- Badly designed shift patterns
- Long or extended working hours, e.g. overtime, on-call work, working from home following a day spent in the office
- Long periods of driving
- Business travel
- Second jobs
- Long commutes
- Observing religious festivals, such as Ramadan, where bedtimes are altered to enable late meals
- Blue light from LED lights, tablets and mobile phones.

With more of us working at home as a result of Covid-19, there may be a propensity for employees to want to work longer hours to justify to employers that they are being productive, or to use work as a distraction from missing family and friends. This can also be a factor in fatigue.

Guidance

Arrangements for Fatigue Risk Management

Fatigue Risk Management (FRM) can be integrated into your existing Occupational Safety and Health management arrangements and the key elements of FRM can be mapped against the HSE's HSG65 'Managing for health and safety' system^{iv}.



Plan

FRM should include a structured framework that is endorsed at a senior level and aligns with the corporate objectives.

A typical FRM policy might set out the organisational arrangements relating to:

- Fatigue modelling – assessing shift patterns, including maximum shift length;
- Exceedance protocols e.g. how overtime will be managed;
- Secondary work;
- Work-related travel including driving at work, business travel and commuting;
- Employee accommodation;
- Risk assessment;
- Monitoring;
- Incident investigation and analysis.

Do

Fatigue modelling as part of risk assessment

The HSE publishes a Fatigue and Risk Index (FRI)^v which can be used by organisations to compare shift patterns and identify particular shift patterns or areas within shift patterns where the risk of injury to employees is greatest. This data can be used to inform your risk assessments. For example, studies have shown that more fatigue-related incidents happen during the early hours of the morning, so fatigue modelling can help organisations to plan breaks or rotation around these peak sleepiness times^{vi}.

Outcomes from the FRI might be to limit night shifts, restrict shift length and overtime, job rotation, buddy systems, provision of employee accommodation/napping facilities.

Training and education

Areas to consider may include:

- The FRM policies and procedures
- Fatigue identification
- How to manage fatigue at work and at home
- Responsibilities for managing fatigue
- Fatigue reduction strategies.

It is recommended that training and education is not simply aimed at managers and employees, but also employees' families, as the home life can have an impact on fatigue. This can be a good addition to your employee wellbeing/assistance programme.

Monitoring and reporting systems

Employees should be encouraged to take responsibility for monitoring how they are feeling and to report to managers when they feel fatigued. Some organisations use a simple self-assessment checklist that employees can use to take stock of their fatigue levels. If employees self-report fatigue, managers can take appropriate action.

Hours worked should also be monitored by supervisors to ensure that employees are not working longer hours than those identified within the FRI. Consideration should be given to an employee's daily commute,

second jobs, home working arrangements, overtime, etc. within the monitoring. Any employee that is exceeding the appropriate number of hours should be flagged under the exceedance protocol.

FRM should be a consideration in your employment policies and non-compliance subject to disciplinary procedure.

Sleep Disorder Management/Employee Assistance Programme

Where sleep problems are identified, employees could be referred to a sleep disorder management programme. Specialists can work with employees to help identify underlying causes and manage sleep disorders such as insomnia.

Employee Assistance Programmes can also be useful in helping employees manage stress and other factors that impact on the quality of sleep.

Check

As with any health and safety arrangements, FRM should be proactively monitored through a combination of auditing and workplace inspection to measure the success of FRM and identify any areas for improvement.

Incident investigation should check hours worked, shift patterns, witness interviews, etc. to flag when fatigue may be a factor in the incident so that the root cause of incidents can be properly investigated and addressed and trends in fatigue risk can be analysed.

Involve employees to seek feedback on how they feel; are shift patterns working for them, how fatiguing do they find the shift patterns, do they have any suggestions for improving fatigue, what works for them and what doesn't? By involving your employees in FRM you are empowering them to build a safety culture where fatigue risk management is acknowledged, understood and driven by employees.

Act

Your organisation should now have a wealth of data, including the outcomes of audits, workplace inspections, employee surveys, incident investigations etc. This information should be used to review your processes and improve your risk controls. Importantly, any changes to your FRM arrangements should be clearly communicated across the organisation.

Conclusion

The key features of Fatigue Risk Management include:

- A structured framework, or arrangements for FRM built into existing OHS management systems
- Risk assessment and fatigue modelling
- Training and education for employees, managers and employees' families, as the home life can have an impact on fatigue
- Self-monitoring and reporting by employees.
- Monitoring of hours worked
- Sleep Disorder Management/EAPs
- Proactive monitoring through audit, workplace inspections and reviews of KPIs
- Incident reports referencing fatigue
- Employees being involved in providing feedback
- Feedback and findings used to improve risk controls
- Changes to FRM arrangements communicated across the organisation.

References

- ⁱ <https://orr.gov.uk/news-and-blogs/press-releases/2020/contractor-renown-consultants-ltd-guilty-after-two-died>
- ⁱⁱ <https://www.hse.gov.uk/humanfactors/topics/fatigue.htm>
- ⁱⁱⁱ [https://journals.lww.com/joem/Fulltext/2012/02000/Fatigue Risk Management in the Workplace.17.aspx](https://journals.lww.com/joem/Fulltext/2012/02000/Fatigue_Risk_Management_in_the_Workplace.17.aspx)
- ^{iv} <https://www.hse.gov.uk/pubns/books/hsg65.htm>
- ^v <https://www.hse.gov.uk/research/rrhtm/rr446.htm>
- ^{vi} Fatigue Risk Management in the Workplace, JOEM Volume 54, Number 2, February 2012

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