

Electricity Industry Occupational Health Advisory Group



Guidance Note 3.3

Night Work

The Occupational Health Advisory Group for the Electricity Industry (OHAG) is an independent body of senior occupational physicians. They all have a professional role to provide advice to individual companies in the electricity industry and they meet together three times a year to discuss matters of common interest and to promote good practice in occupational health across the industry. The main route for doing this is by the preparation of guidance notes on topics of interest to the industry. The remit of OHAG and its guidance covers all aspect of the industry from generation, through transmission and distribution to retail and supply.

Until now the promulgation of this OHAG guidance has largely been by means of paper copies of the documents circulating within individual companies in the electricity industry. OHAG recognises that there is a need to make these papers more widely available and is grateful for the support provided by the Energy Networks Association (ENA) in hosting these documents on their website, and the links to them from the websites of the Association of Electricity Producers (AEP) and the Energy Retail Association (ERA).

The guidance notes will be of interest to managers, employees and occupational health professionals within the industry. They give general advice which has to be interpreted in the light of local circumstances. Health professionals using the guidance, retain an individual responsibility to act in accordance with appropriate professional standards and ethics. This guidance is offered in good faith and neither the individual members of OHAG, the companies they support, the ENA, AEP or the ERA can accept any liability for actions taken as a result of using the guidance.



Night Work

1. Introduction

Shift work and night work are becoming increasingly commonplace within our service industries. This reflects the cultural changes and demands over the past 20-30 years. We now live in a '24/7' environment and work organization has changed in order to deliver this.

Shift schedules can disrupt natural circadian rhythms and result in sleep loss. Tiredness affects concentration and performance increasing the risks of errors and accidents. In addition, shift work has been associated with increased risk of (or aggravation of pre-existing) cardiovascular disease, gastrointestinal disease and stress.

2. Aims of this Document

The aims of this document are to:

- Explain the statutory background to the provision of health assessment for night workers;
- Identify the role of Occupational Health professionals in the provision of support to night workers and their employers;
- Identify the key health issues for night workers and how to respond to these.

3. Relevant Legislation

- Working Time Regulations 1998
- Disability Discrimination Act 1995; 2005
- Management of Health and Safety at Work Regulations 1999

4. Relevant Guidance

- Provision of Health Assessments Under the Working Time Regulations 1998, The Society and Faculty of Occupational Medicine 1999, available from the Society of Occupational Medicine, London, www.som.org.uk



5. Legal background

The Working Time Regulations 1998, came into force on 1st October 1998. These regulations implemented the EEC Working Time and Young Workers Directives. The Regulations make provisions in law for (amongst others) night work and health assessments for night workers.

The Regulations apply to most workers and employers however, there are several exceptions including the transport sector, the fishing industry, the police and armed forces.

For the purpose of the Regulations working time includes any period during which the worker is "working at his employer's disposal and carrying out his activity or duties".

Employers are under a duty to take reasonable care for the health and safety of their employees. This covers not just the physical environment but also the way in which their work is organized, including working hours. This should be the subject of a risk assessment.

A night worker is defined as someone who, as a normal course, works at least 3 hours of his daily working time during night time (11pm - 6am; or otherwise hours determined by agreement) or is likely to work during night time for such proportion of his/her working time as may be specified in a collective or workforce agreement or works sufficiently often during night-time that they may be said to work such hours as a normal course.

Employers must take "all reasonable" steps to ensure that the normal working hours of night workers do not average in excess of 8 hours in each 24-hour period (averaged over 17 weeks). Where night work involves special hazards or heavy physical or mental strain, the 8-hour limit applies to any 24-hour period not the average. Special hazards can be identified as such in a workforce agreement or by a risk assessment. Employers must offer a health assessment to any worker who is to become a night worker. They must also give night workers the opportunity to have further assessments at regular intervals.

6. Role of Occupational Health professionals

The role of Occupational Health Professionals in relation to the issues associated with shift work can be divided into three main areas:

- a. Assisting organizations in designing suitable systems of work that take account of:
 - Hazards
 - Job type



- Tasks
- Workforce demographics

In October 2007 shift work that involves circadian disruption was classified as probably carcinogenic to humans (Group 2A) by the International Agency for Research on Cancer (IARC). This was on the basis of epidemiological studies involving long term night workers, predominantly nurses and flight attendants, where there appeared to be an increased risk of breast cancer. IARC have yet to publish their full assessment (as one of their Monographs) but they do say that more studies are needed to examine this potential risk in other occupations and for other cancers. Until such research is conducted, no practical advice can be offered.

- b. Provision of advice and support to employees regarding management of rest/sleep/work patterns and social factors in order to reduce impact of shift work.
- c. Medical assessments for employees and advice to employers regarding fitness to work issues.

7. Assisting organizations in designing suitable systems of work

This is a complex subject and it is true to say that there is no perfect shift system. There are however shift patterns that will better suit particular circumstances of work. There are numerous sources of information on this topic and discussion is beyond the scope of this document. An example is the NIOSH publication 'Plain Language About Shift Work'.

8. Provision of advice and support to employees

Again there is much written on this topic. Basic advice can be provided on a one to one basis, via literature or through training sessions for employees (possibly including relatives). Principle areas of attention include:

- Organizing sleep/work/social patterns
- Protecting sleep time
- Managing existing medical problems
- Exercise
- Diet

Again, there are numerous sources of information on this topic and discussion is beyond the scope of this document. A useful reference is 'An intervention using a self-help guide to improve the coping behaviour of nightshift workers and its evaluation'.



9. Medical assessments and advice regarding fitness to work

a. Health assessments

An employer must offer a free health assessment to any worker who is to become a night worker. Employers must also give night workers the opportunity to have further assessments at regular intervals.

The purpose of the health assessment is to determine whether workers are fit to carry out the night work to which they are assigned.

Health Assessments should be offered to employees both before undertaking night work and regularly thereafter. Based on current guidance, these assessments should be offered every two years, however, the appropriate frequency of repeat assessments will vary between individuals according to various factors such as age, health problems, type of work etc. Occupational Health Professionals can offer advice to management about the recommended frequency of assessments out-with the normal two-year period on a case-by-case basis.

Under the Working Time Regulations, a night worker is entitled to be transferred, *whenever possible*, to other suitable work which is not at night, where a registered medical practitioner has advised the employer that the worker is suffering from health problems that affect or are affected by night work.

Where a worker's fitness for night work becomes affected by a disability, management has a duty under the Disability Discrimination Act 1995 to make reasonable adjustments, which might include changes to the worker's hours of work. The purpose of this is to overcome any disadvantage to the worker because of their disability and their requirement to undertake night work.

b. Medical factors

The following is a list of medical factors/conditions that could have implications for fitness for night work:

- diabetes and other conditions with strict medication regimes
- asthma and chronic obstructive airways disease
- cardiovascular disease
- neurological disease, epilepsy and visual impairment
- psychiatric disorders including drug or alcohol misuse/dependency
- general medical conditions such as gastrointestinal disorders and renal disease requiring dialysis
- special groups such as pregnant or young workers

Some workers find it very difficult to adapt to night or shift work presenting with symptoms sometimes labelled as 'shift maladaptation syndrome'. Tolerance of



night/shift work tends to reduce with age.

Blanket restrictions based on fixed criteria should be avoided and individual risk assessments conducted where significant medical problems exist. The Disability Discrimination Act 1995 does not automatically over-ride health and safety regulations. Consideration should always be given to reasonable adjustments that would enable a disabled employee to continue working.

c. Health Promotion

Given the association between shift work and the risk of cardiovascular or gastrointestinal disease, it may be that night workers are a population that should be targeted for health promotion activities in order to influence modification of other risk factor for these diseases. At present, research has shown an association between shift workers and increased cardiovascular risk. The mechanism for this is not currently known however adaptive poor lifestyle factors have been suggested as a possible reason. The shift work itself may be a factor however a plausible mechanism for this has not been demonstrated.

10. Recommendation

Occupational health professionals should work with employers to assist them in their statutory duty of making health assessments available to night workers. The guidance published by the Society and Faculty of Occupational Medicine provides a useful framework for doing this. Assessments are based on the use of a screening questionnaire with appropriate follow up and further medical advice for individuals with identified health problems.

11. Summary

Night workers are defined in legislation and have the right to a health assessment. Occupational health professional may assist employers in the design of night work and giving advice and support to night workers. They should also undertake night worker assessments in a way that is agreeable to both employers and workers and which will usually be based on the use of an initial screening questionnaire.

References and sources of further information

1. Provision of Health Assessments Under the Working Time Regulations 1998, The Society and Faculty of Occupational Medicine 1999, available to buy from the Society of Occupational Medicine, London, www.som.org.uk



2. 'Plain language about shift work', National Institute of Occupational Safety and Health (NIOSH), Cincinnati, USA, OH publication No 97-145
www.cdc.gov/niosh/pdfs/97-145.pdf
3. 'An Intervention using a self-help guide to improve the coping behaviour of nightshift workers and its evaluation', HSE Contract Research Report 365 2001, www.hse.gov.uk/research/crr_pdf/2001/crr01365.pdf
4. 'Your guide to the working time regulations'. Section 1-4; Sections 5-11.
www.dti.gov.uk/employment/employment-legislation/employment-guidance
5. 'Health disorders of shift workers', Knutsson A, Occupational Medicine (London), 2003, Vol 53, p103 and following pages
6. 'Fitness for Work - The Medical Aspects'. Palmer, Cox and Brown Oxford University Press, Oxford, 2007, ISBN 978 0 19 921565 2
7. 'Managing shift work', Health and Safety Executive, HSG 256, HSE Books, 2006, ISBN 0-7176-6197-0
8. 'Working the night shift: preparation, survival and recovery. A guide for junior doctors', Horrocks N and Pounder R, Royal College of Physicians, London, 2006, ISBN 1 86016 259 2
www.rcplondon.ac.uk/pubs/contents/167c3e17-66da-415e-8acb-9cc8cc1734f1.pdf