

Guide on Shift Work



Occupational Safety and Health Branch
Labour Department



This guide is prepared by the Occupational Safety and Health Branch,
Labour Department

This edition September 2008

This guide is issued free of charge and can be obtained from the offices of the Occupational Safety and Health Branch of the Labour Department. It can also be downloaded from website of the Department at http://www.labour.gov.hk/eng/public/content2_9.htm. For enquiries about addresses and telephone numbers of the offices, please refer to Labour Department's website at <http://www.labour.gov.hk/eng/tele/osh.htm> or call 2559 2297.

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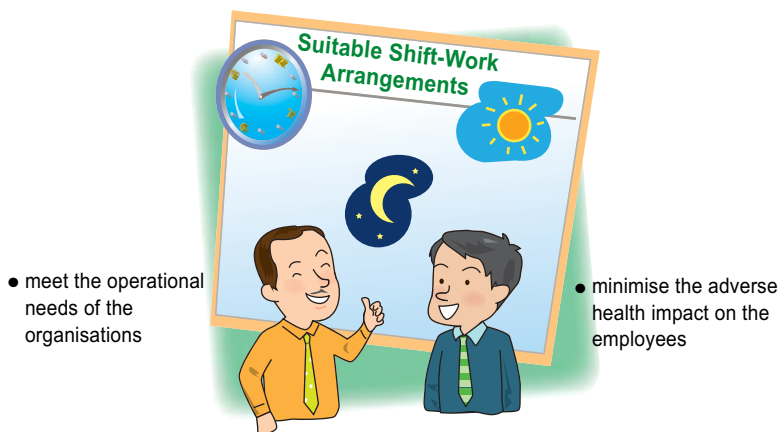


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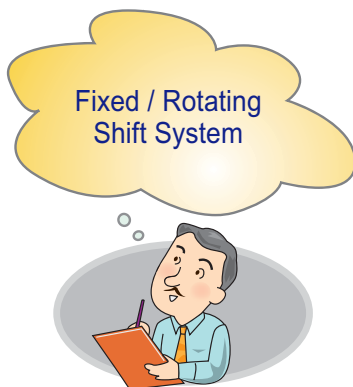
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Introduction

1. Shift work is common in many sectors. Essential and emergency services such as medical, transport, fire and rescue, law enforcement services and some public services have to be provided round-the-clock. In recent years, some service establishments such as convenience stores and fast food shops also provide 24-hour service and employees concerned therefore are required to work in shifts. Suitably arranged shift work is important to employees, employers and the self-employed.
2. This Guide aims to draw the attention of employers and employees to the importance of shift arrangements involving overnight shifts. Although it is not legally binding and hence compliance is not mandatory, it strongly recommends employers and employees to make reference to the factors mentioned here in working out suitable shift-work arrangements that could both minimise the adverse health impact on the employees and meet the operational needs of the organisations.



3. According to the International Labour Organization, working in shifts is "a method of organisation of working time in which workers succeed one another at the workplace so that the establishment can operate longer than the hours of work of individual workers" at different daily and night hours. The shift system can be generally classified into a fixed shift system and a rotating one.



4. Fatigue may lead to accidents in the workplace, endangering not only the employees themselves, but also other people. By minimising possible health impact on the employees, good shift arrangements help reduce workplace accidents and enhance employees' overall productivity and quality of service; and are thus beneficial to employees, employers as well as the clients they serve. Similarly, self-employed persons should also be aware of the importance of suitable shift-work arrangements.
5. Some organisations have distinctly different requirements and constraints. Some factors described in this guide, therefore, may not be applicable or practicable. In the circumstances, the shift work should be so arranged taking into account all relevant factors.

Health and Social Effects of Shift Work

6. Many human physiological, psychological and behavioural indicators (such as body temperature, mood, endocrine function and alertness) change with the biological clock (circadian rhythm) which generally operates on a cycle of around 24 hours. Some shift arrangements can disrupt the circadian rhythm, and may have adverse physiological, psychological and social impact on the employees, which could impair the employees' performance as well as efficiency. For example, prolonged irregular shift work can affect the quality of sleep of the employees and may, in severe cases, cause health problems such as hypertension and gastrointestinal problems, or affect the social life of employees.



Shift Work Arrangements

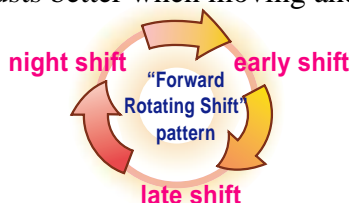
7. In order to alleviate the possible effects of shift work on employees, there are some factors, elaborated in paragraphs 8-10, that could be considered in making shift arrangements for protecting their occupational safety and health. Employers and employees should, where possible, take into account these factors in working out shift arrangements.

Employers

8. Optimising the arrangement for shift work can help reduce possible health effects on employees. There are a number of factors which employers may take into consideration –

Work Arrangement

- (a) the necessity of 24-hour operation: if overnight shifts are unavoidable due to operational needs, an appropriate level of staffing could minimise the number of overnight shifts required as far as possible while meeting the operational needs of the organisations;
- (b) the necessity of permanent night shifts: some employees may not be able to cope with permanent night shifts. Employers should consider requiring employees to share out the assigned overnight shift work through staff rotation;
- (c) the direction of rotation of shifts: medical opinions generally recommend a "Forward Rotating Shift" pattern, in the order of early shift, late shift and night shift, for employees working in rotating shifts, because the biological clock adjusts better when moving ahead than back;



- (d) the length of the rotation period (i.e. the number of days on any one shift before switching to the next shift): medical literature suggests that a fast rotating shift pattern (e.g. rotating the shifts every 2-3 days) could reduce disruption of the biological clock, while rotation of the shifts after a longer period (e.g. every 3-4 weeks) allows time for adaptation of the biological clock. Either shift patterns could be considered, taking into account the circumstances of the operations;
- (e) the time at which a morning shift starts: early morning shifts may be associated with shorter sleep and greater fatigue. It is advisable to avoid early morning starts as far as practicable and consider fitting the shift time in with the availability of transport, in particular for workplaces in remote locations and employees having to travel for long hours to work;



- (f) the length of a work shift: an extended shift has the advantage of fewer consecutive night shifts and longer blocks of time off. However, additional fatigue from longer work hours may have adverse health effects. The physical and mental load of the task should be taken into consideration when considering the length of a work shift. Unless justified by special circumstances such as important operational requirements or a preference generally shared by staff concerned, unduly extended shift (including overtime) should be avoided as far as practicable. If the

work is continuous throughout a shift and is also demanding, monotonous, dangerous and safety-critical, employers should consider whether shortening each shift is necessary, or should consider introducing rest breaks in each shift to help employees cope with their work mentally and physically;



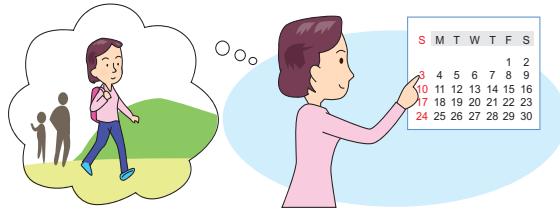
Unduly extended shift

- (g) rest break arrangements: suitable rest breaks for employees allow them to relax and recuperate. This is particularly important for employees working in shifts. Apart from rest breaks within a shift, there should also be time for rest between shifts. For arrangements of rest breaks, please refer to the “Guide on Rest Breaks” published by the Committee of Occupational Safety and Health of the Labour Advisory Board. This is available in the Labour Department’s Occupational Safety and Health Branch offices or Labour Department’s website at http://www.labour.gov.hk/eng/public/content2_8d.htm;



Suitable rest break

- (h) off-duty days in a shift schedule: regular off-duty days in a shift schedule enable employees to plan for social and domestic activities;



Working Environment

- (i) quality of the work environment: a safe and adequately lighted environment with suitable temperature, preferably adjustable, is conducive to the health and productivity of shift workers;
- (j) training on shift work for employees: suitable training could include an explanation of the possible health effects of shift work and tips on possible ways to prevent such effects, appropriate arrangements on social activities to minimise social isolation due to shift work, and stress recognition and management; and



- (k) facilities provided for employees on shifts: providing similar facilities in different shifts offers a familiar environment, which could better enable employees to cope with the shift work.

Employees

9. To protect their own occupational safety and health, employees engaged in shift work can consider the following factors –
- (a) the mode of transportation: using public transport rather than driving to and from work could avoid tiredness from driving before and after undertaking shift work;



- (b) maintaining good quality sleep and a healthy lifestyle:
- (i) sleeping on a set schedule could help establish routine and make sleep during the day easier;
 - (ii) a dark and quiet environment is conducive to sleep after finishing night-shift work and when going to bed early that night;
 - (iii) relying on sleeping pills to aid sleep may cause drug dependence. It is healthier to use relaxation techniques to aid sleep;

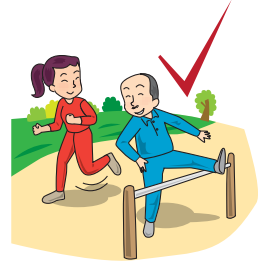


(iv) drinking coffee, tea or alcoholic beverages before sleep would adversely affect sleep quality;



(v) heavy meals and/or fatty, spicy food before sleep should be avoided and time should be allowed for digestion, and abstinence from smoking and alcohol;

(vi) regular exercise, balanced diet and adequate sleep help maintain health;



(vii) making use of cigarette or coffee to keep you alert at work is a bad practice; and

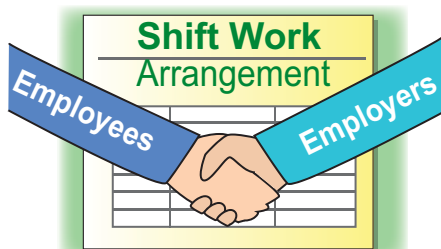
(c) making family and friends aware of your shift schedule: this will enable them to take into account your availability when planning family and social activities.

10. Employees who are suffering from certain diseases, such as diabetes mellitus and gastric ulcer, requiring regular follow-up consultation and medication should inform their doctors about their shift work arrangements. This will enable the doctors to plan appropriate treatment for them. They can refer to the publications entitled "Work and Diabetes" and "Work and Common Gastrointestinal Diseases" published by the Labour Department for further information about how these common diseases and work affect each other.



Dialogue between Employers and Employees

11. No single pattern of overnight shift arrangements can suit the divergent needs of different organisations. A suitable shift arrangement is beneficial to employers, employees, and in some cases even members of the public. As far as possible, employers should involve employees in working out the most suitable shift arrangements that can meet the needs of organisational operation, ensure service quality and have regard to the safety and health of employees. For establishments with workplace communication mechanism (including safety committees), employers could make use of such mechanism to seek the views of employees on the shift arrangements. It is always a good practice for employers to inform their employees as early as possible of the need to work in shifts (e.g. before the employment and posting is effected) so that they can make necessary arrangements in their family and social commitments in advance.



Enquiries

12. For enquiries on this booklet or advice on occupational health and hygiene matters, please contact the Labour Department's Occupational Safety and Health Branch through:

Telephone : 2852 4041

Fax : 2581 2049

E-mail : enquiry@labour.gov.hk

13. Information on the services offered by the Labour Department and on major labour legislation can also be found on our Homepage at <http://www.labour.gov.hk>.

Complaints

14. If you have any complaints about unsafe workplaces and practices, please call the Labour Department's occupational safety and health complaint hotline at 2542 2172. All complaints will be treated in the strictest confidence.

