

Safe Systems of Work



Labour Department



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1. Introduction

Section 6A of the Factories and Industrial Undertakings Ordinance, Chapter 59 and Section 6 of the Occupational Safety and Health Ordinance, Chapter 509 require respectively every proprietor of an industrial undertaking and every employer to ensure the occupational safety and health of all persons employed at the industrial undertaking and/or workplace, including provision and maintenance of “systems of work” that are, so far as reasonably practicable, safe and without risks to health.

This Guidebook intends to assist proprietors, employers, managers and others responsible for safety and health at work to understand the principles and to provide a general framework for developing safe systems of work.



Section 6A of
the Factories and
Industrial Undertakings Ordinance



Section 6 of
the Occupational Safety and
Health Ordinance

2. Safe Systems of Work

2.1 What is a safe system of work?

A safe system of work is a suitable safe working procedure which results from systematic examination of a task in order to identify all the hazards. It formulates effective and reasonably practicable safe methods to ensure that hazards are eliminated or risks are minimised.

2.2 When is a safe system of work needed?

Many hazards are clearly recognisable and can be overcome by physically separating people from them, e.g. by using effective guarding on machinery.

A safe system of work is needed when hazards cannot be physically eliminated or some elements of risk remain. You should apply it to routine work as well as to more special cases such as:

- ❖ cleaning and maintenance operations of plant;
- ❖ making changes to work layouts, materials used or work methods;
- ❖ employees working away from base or alone;
- ❖ breakdowns of plant and emergency repairing;
- ❖ controlling as well as monitoring activities of contractors on the premises; or
- ❖ loading, unloading and movements of materials.

FIVE STEPS TO A SAFE SYSTEM OF WORK

- ✓ Assess the task
 - ✓ Identify the hazards
 - ✓ Formulate safe methods
 - ✓ Implement the system
 - ✓ Monitor the system

2.3 Assess the task

Appoint a competent person who has substantial training and practical experience, understands the task and is capable to conduct task-specific risk assessments to assess all aspects of the task and the risks it presents. Hazards to safety and health should be considered.

Take account of:

- ❖ ***what*** materials, plant and mode of operations are used?
e.g. the plant and substances, potential failures of machinery, toxic hazards, electrical hazards, limitation of design, risks of inadvertently operating automatic controls.
- ❖ ***who*** does what?
e.g. job allocation, training, foreseeable human errors, shortcuts, ability to cope in an emergency.
- ❖ ***where*** the task is carried out?
e.g. hazards in the workplace, problems caused by weather conditions or lighting, hazards from processes or contractors adjacent to workplace.
- ❖ ***how*** the task is done?
e.g. the procedures, potential failures in work methods, the response to emergencies.

The assessments should be documented and kept for future reference or use. If there is any significant change in circumstances (such as materials, procedures, plant) or those assessments have become invalid, a fresh risk assessment should be conducted.

2.4 Identify the hazards

When you have assessed a task, you should be able to identify its job related hazards and weigh up the risks. Nevertheless, you should eliminate the hazards before you implement a safe system of work. If you could not eliminate such hazards, you should determine for each hazard whether the level of the remaining risk is high, medium or low, and reduce the risks in the priority of substitution, engineering controls, administrative controls or personal protective equipment.

2.5 Formulate safe methods

Your safe system of work should be in writing, outlining the safe work methods, work procedures and major issues, in exceptional cases by an effective “Permit-to-work” system. The following should also be taken into account in formulating safe methods:

- ❖ the preparation and authorization needed at the start of the job;
- ❖ proper planning of operation procedures;
- ❖ details of safe work methods;
- ❖ means of access and escape; and
- ❖ method of dismantling and disposal of waste, etc. at the end of the operation.

Involve the employees who will be doing the work. Their experience and practical knowledge of problems can help formulate suitable safe methods and prevent false assumptions.

In those special cases where a “Permit-to-work” system is adopted, there should be a properly documented procedure. It is important that everyone understands the scope and condition of application of the “Permit-to-work”. “Permit-to-work” system should include the following that:

- (a) define the work to be done;
- (b) state how to make the safe working area;
- (c) identify any residual hazards and the precautions to be taken;
- (d) describe checks to be carried out before normal work can be resumed;
- (e) issue the “Permit-to-work” and specify its validity period before commencing the work; and
- (f) assign competent persons to monitor the work.

Jobs likely to need a “Permit-to-work” system include:

- ❖ working in confined spaces;
- ❖ carrying out hot work on plant containing flammable dusts, liquids, gases, substances or residues of these;
- ❖ cutting of pipes containing hazardous substances;
- ❖ working on electrical equipment; and
- ❖ cleaning, inspection and maintenance of large machinery, plant, production line and compressed air vessel, etc.

2.6 Implement the system

Your safe system of work must be communicated properly, understood by employees of its importance and correct application. They should be aware of its effectiveness in prevention of incidents as well as reducing accidents.

Ensure supervisors know the systems of work they should implement and maintain, and that employees, supervisors and managers are well trained in the necessary skills and are fully aware of the potential risks and the precautions they need to adopt. Appropriate supervision of employees is very important. Effective supervision ensures that employees strictly implement safe work procedures and safety measures.

Shortcuts must be avoided. It should be part of a system of work to stop work immediately when faced with an unexpected problem until a safe solution can be found.

2.7 Monitor the system

Appropriate monitoring is very important. Effective monitoring can help the management implement safe systems of work and evaluate their effectiveness, and assess the effectiveness of the training provided to employees.

Monitoring means periodically checking that:

- ❖ employees continue to find the system workable;
- ❖ the procedures laid down in your system of work are being carried out and are effective; and
- ❖ any changes in risk factors, circumstances, etc. which require alterations to the system of work.

Review the safe systems of work regularly and ensure:

- ❖ its compliance with the latest regulations;
- ❖ its compliance with recent risk assessments;
- ❖ to improve the control measures in the event of incidents, injuries or diseases;
- ❖ new or modified plant or equipment is functioning well and in safe working order;
- ❖ safer substances are considered;
- ❖ new working methods are effectively implemented; and
- ❖ the use of advanced technology to improve its efficiency and effectiveness.

3. Enquiries and Complaints

Enquiries

If you wish to enquire about this Guidebook or require advice on occupational safety and health (OSH) matters, please contact the Occupational Safety and Health Branch of the Labour Department (LD) through:

Telephone : 2559 2297 (auto-recording service available outside office hours)

Fax : 2915 1410

E-mail : enquiry@labour.gov.hk

Information on the services offered by LD and on major labour legislation is also available on our website at <https://www.labour.gov.hk>. The latest OSH information can be obtained through the LD's Work Safety Alert Mobile Application. For details on the services offered by the Occupational Safety and Health Council, please call 2739 9000.



Labour Department's Website



Work Safety Alert Mobile Application

Complaints

If you have any complaint about unsafe operations and environments at workplaces, please call the LD's OSH complaint hotline at 2542 2172 or fill out and submit an online OSH complaint form on our website. All complaints will be treated in the strictest confidence.



Online OSH Complaint Form

