

**Note on:
OCCUPATIONAL HEALTH AND SAFETY
MANAGEMENT SYSTEMS**

This note aims to give background information to RSC members on the various occupational health and safety management systems that are currently available. The Note is not intended to be a full or definite guide and readers are urged to obtain more detailed information and/or expert advice if this is required.

INTRODUCTION

Legislation in the United Kingdom requires that employers have appropriate arrangements in place for the management and control of health and safety at work. In order to achieve these requirements employers need to have an effective occupational health and safety management system that it is clearly defined and well documented.

There are a number of occupational health and safety management systems which can be applied including the HSE Guidance Booklet HS(G)65 "Successful health and safety management", the British Standard BS OHSAS 18001:2007 "Occupational health and safety management systems – Requirements" and the International Labour Office ILO-OSH 2001 "Guidelines on occupational safety and health management systems". Each of these management systems is based on the "plan-do-check-act" management model and embodies the principle of continual improvement as exemplified in the British Standard for quality assurance systems.

HS(G)65

The Health and Safety Executive first published "Successful health and safety management", HS(G)65, in 1991 and the revised edition was published in 1997. HS(G)65 takes the "plan-do-check-act" management model and translates it into the five key elements of a successful health and safety management system. The five elements are:

- Policy
- Organising
- Planning and Implementing
- Measuring performance
- Reviewing performance

These elements are inter-linked and are subject to auditing as shown in the HS(G)65 occupational health and safety management system model in Figure 1 below:

In this model the policy should set out a clear direction for the organisation to follow. It should demonstrate the organisation's intention to achieve and maintain high standards of health and safety and the commitment to continuous improvement. The policy should establish the health and safety management system and the responsibilities for achieving its objectives.

Organising for health and safety requires both management and employees to be actively involved and committed to the policy. This participation can be achieved by ensuring management control, the effective co-operation of employees and their safety representatives, the establishment of an effective safety communication system, achieving co-ordination of activities and ensuring the competence of all employees.

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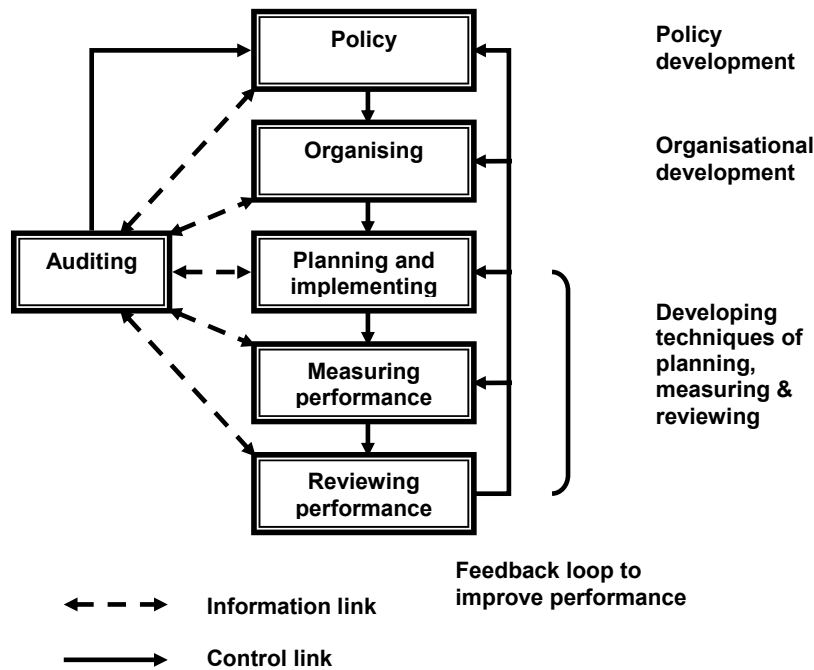


Figure 1: HS(G)65 model

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Planning and implementing requires a systematic approach to implementing the policy and the establishment of an effective management system for the minimisation of risks. Risk assessment methods should be used to establish priorities and objectives for eliminating hazards and reducing risks. If possible, risks should be eliminated through the selection and design of facilities, equipment and processes. If risks cannot be eliminated, they should be minimised by the use of physical controls or, as a last resort, through safe systems of work and the use of personal protective equipment. Performance standards should be established and should be used for the measuring of performance. Actions should be identified for the promotion of a positive health and safety culture.

Measuring performance reveals how effectively the health and safety management system is functioning. This can be done both from an active and a reactive perspective. Active monitoring is intended to measure the achievement of objectives and standards. This involves inspections and checks to ensure standards are being implemented and that the management controls are operating correctly. Reactive monitoring involves the collection and analysis of failures of the health and safety management systems. Organisations need to learn from accidents, ill-health, property damage and near misses. Information from both active and reactive monitoring can be used to identify causes of failures or sub-standard performance and to refine the management system to prevent recurrences and to improve performance.

The systematic review of performance should be based on both the data from monitoring and the results of audits of the management system. The review should consider the standard of compliance with the health and safety policy and legislative requirements, the accident and ill-health performance and how well objectives have been met.

BS OHSAS 18001

Following the introduction of the Management of Health and Safety at Work Regulations 1992 there was a demand for guidance on good practice for the establishment of occupational management systems. As a result the British Standards Institution (BSI) published the guidance document BS 8800:1996 "Guidance on occupational health and safety management systems" which was updated in 2004.

Following the publication of BS 8800:1996 there was pressure from commercial organisations for the preparation of a "specification" against which organisations could be audited and could obtain third party certification. As a result BSI, in association with other national standards bodies, certification bodies and specialist consultancies, developed the Occupational Health and Safety Assessment Series document OHSAS 18001:1999 "Occupational health and safety management systems- Specification". This document has been used extensively in over 70 countries worldwide.

This document was revised in 2007 for worldwide application (OHSAS 18001:2007) and has been adopted in the UK as British Standard BS OHSAS 18001:2007 "Occupational health and safety management systems – Requirements". Organisations are able to achieve accredited certification under this standard. The management model used in BS OHSAS 18001 is based on the BS EN ISO 14001 environmental model and is shown in Figure 3 below:

In this model the occupational health and safety (OH&S) policy must state the overall objectives and a commitment to the prevention of injury and ill-health and continual improvement in OH&S management and OH&S performance. The policy must be defined and authorised by top management.

Planning should include: hazard identification, risk assessment and risk controls; legal and other requirements; and objectives and the OH&S management programme. This programme should describe how the organisation establishes and maintains systems and procedures for achieving its objectives.

Implementation and operation includes: resources, roles, responsibility, accountability and authority; competence, training and awareness; communication, participation and consultation; documentation; control of documents; operational control; and emergency preparedness and response.

Checking and corrective action relates to: performance measurement and monitoring; evaluation of compliance; incident investigation, nonconformity, corrective action and preventive action; control of records; and internal audit.

Management review requires the organisation's top management to review the OH&S management system at fixed intervals to ensure its continuing suitability, adequacy and effectiveness.

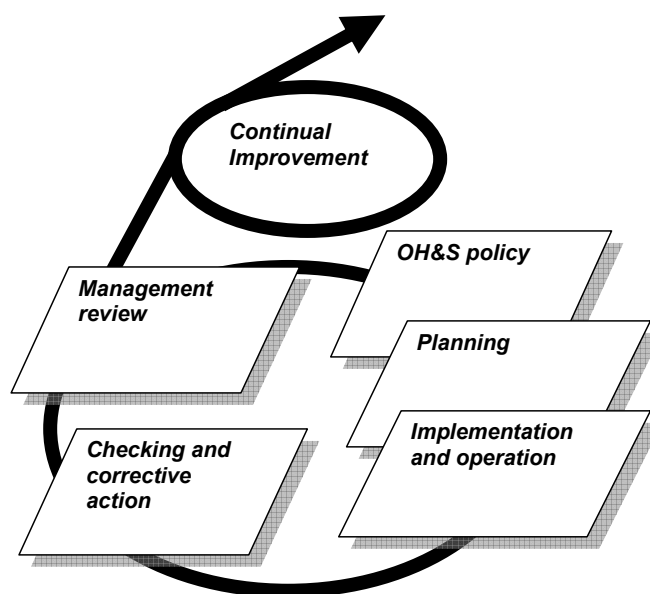


Figure 2: BS OHSAS 18001 model

BS OHSAS 18001 has two annexes which draw comparisons between BS OHSAS 18001:2007 and standards for environmental management systems, quality management systems and the ILO-OSH Guidelines.

The annexes demonstrate that there are no significant differences between any of these management systems. The requirements of the common elements used in all the systems show a large degree of overlap and most are common requirements. The differences between BS OHSAS 18001 and the environmental management systems and quality management systems standards relate largely to scope and the specific needs of OH&S requirements compared to those relating to quality and environment. The distinction between BS OHSAS 18001 and ILO-OSH 2001 is mainly in the order which the elements are addressed.

Detailed guidance on how to implement BS OHSAS 18001 is given in the second British Standard in the OH&S Management Systems Series, BS OHSAS 18002:2008 "Occupational health and safety management systems – Guidelines for the implementation of OHSAS 18001:2007".

A third British Standard in the OH&S Management Systems Series is BS 18004:2008 "Guide to achieving effective health and safety performance". This new standard is a revision of the former guidance document BS8800:2004 and is based on BS OHSAS 18001. It contains guidance on occupational health and safety management systems which can be used either as a standalone document to help establish a management system or as part of a programme under BS OHSAS 18001 to seek accredited certification.

BS OHSAS 18004 has a number of annexes which provide detailed information on elements of the management system in relation to:

- integration (of BS OHSAS 18001 management system);
- implementation and operation;
- promoting an effective OHSAS management system;
- setting objectives and planning and implementing OH&S programmes;
- risk assessment and control;
- operational control;
- occupational health;
- worker involvement;
- emergency preparedness and response;
- measuring performance;
- incident investigation; and
- internal audit.

INTERNATIONAL STANDARDS

Although there are formal international standards for managing quality (ISO 9000) and environment (ISO 14000), there is no recognised International Organisation Standardisation (ISO) certifiable standard for occupational health and safety management. ISO has been wary of becoming involved in occupational health and safety. At an ISO Workshop in 1996 it was concluded that the time was not right for an occupational health and safety management standard. Later in 2000 ISO rejected an approach from the International Labour Organisation (ILO) regarding an international standard. Consequently, after it reviewed over twenty national occupational health and safety management systems the ILO developed its own non-certifiable guidance, "Guidelines on occupational safety and health management systems – ILO-OSH 2001". A flow diagram based on the ILO approach is given in Figure 3 below:

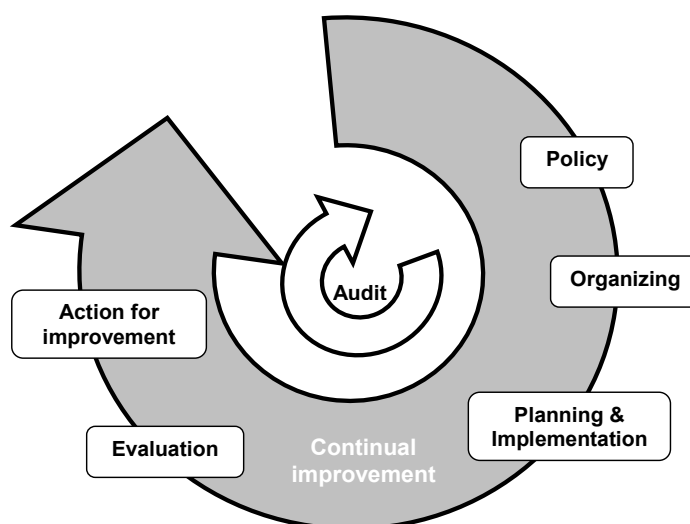


Figure 3: Flow diagram based on the ILO approach

The Policy section covers both the occupational safety and health policy and worker participation.

Organising covers responsibility and accountability, competence and training, documentation and communication.

Planning and implementation covers initial review, system planning, development and implementation, safety and health objectives and hazard prevention (prevention and control measures, management of change, emergency prevention, preparedness and response, procurement and contracting).

Evaluation covers performance monitoring and measurement, investigation of work-related injuries, ill health, diseases and incidents, and their impact on safety and health performance, audit and management review.

Action for improvement covers preventive and corrective action and continual improvement.

Although the ILO did not intend to make the standard certifiable, the Chinese Government has adopted the ILO system and has used it to develop a certification framework.

The increasing pressure to report performance and demonstrate corporate responsibility coupled with the popularity of ISO 9000 and ISO 14000 has led to a growing interest in OHSAS 18001. In the absence of an official ISO standard, OHSAS 18001:2007 has in effect become established as an "international certification standard".

International certification bodies and national standards bodies in UK, Ireland, South Africa, Spain and Malaysia are using OHSAS 18001 for certification purposes. It is estimated that currently some 32,000 organisations in 82 countries have adopted OHSAS 18001.

SECTOR GUIDANCE/OTHER SYSTEMS

In addition to the three occupational health and safety management systems outlined above, a number of industry sectors have published their own guidance, notably the Chemical Industries Association (CIA) within its Responsible Care Management System originally introduced in 1989. This is a voluntary initiative that is designed to maintain and demonstrate continual improvement in all aspects health, safety, and environmental performance of chemical industry's operations and products and a commitment to openness in communication about its activities and achievements.

The Responsible Care Management System is an integrated management system that encapsulates health and safety, environmental and quality systems in a common approach using the same "plan-do-check-act" management model adopted in the four main occupational health and safety management systems outlined in the above sections. The CIA's guidance published on the Responsible Care Management System addresses the requirements of the four main occupational health and safety management systems outlined in the above sections.

The schematic diagram of the Responsible Care Management System is set out below in Figure 5.

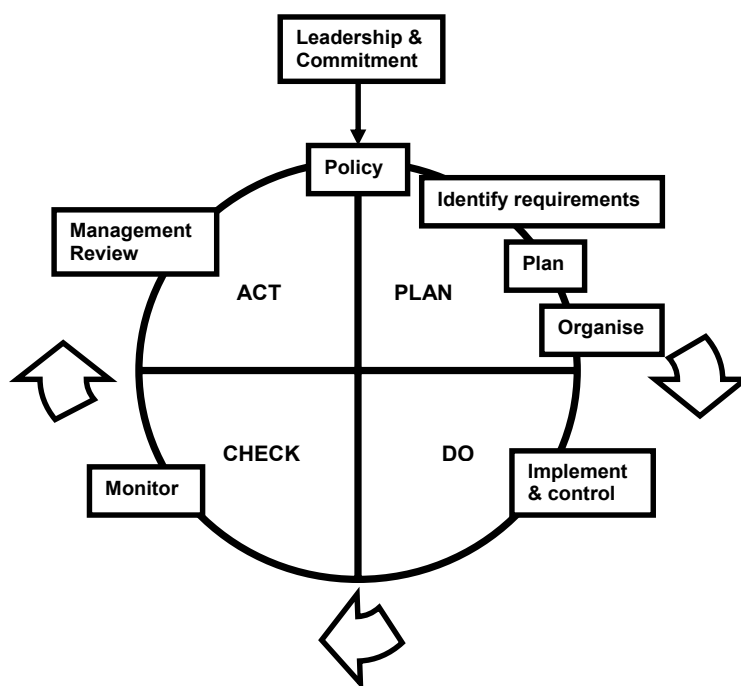


Figure 5: CIA's Responsible Care Management System

The main elements of this system are similar to those included in the four occupational health and safety management systems outlined in previous sections and, therefore, no further explanation is given. The only difference is the extra element "Leadership and Commitment" that is included in order to emphasise the importance of the commitment from senior management to the Responsible Care programme.

Organisations that adopt the CIA's Responsible Care Management System can obtain third party certification from approved auditors with five certification bodies.

WHICH SYSTEM TO USE?

The choice of which system to adopt depends solely on the needs of individual organisations. However, the organisation needs to ensure that their chosen system includes provision for continual improvement, involves stakeholders and auditing and is well documented in order to demonstrate effectiveness.

If an organisation already has accreditation under BS EN ISO 9001 and BS EN ISO 14001 it may consider adopting BS OHSAS 18001:2007 as part of an integrated approach. BS OHSAS 18001:2007 is designed to be compatible with these standards for quality and environmental management systems.

Currently discussions are being held at International, European and National levels on the possible development of a single international standard (ISO standard) for occupational health and safety management systems.

CONCLUSIONS

By using one of the above occupational health and safety management systems organisations will be able to demonstrate legislative compliance, their commitment to health and safety and improved standards in the management and control of risk. As a direct outcome there should be a reduction in accidents, ill-health, insurance claims, downtime and overall cost savings.

The Royal Society of Chemistry believes that occupational accidents and ill-health can be prevented and well being at work can be improved if organisations manage health and safety to the same standard as other core business activities. To this extent health and safety should be seen as an integral part of an organisation's overall management system. The adoption of a formalised occupational health and safety management system provides a sound basis for achieving these ideals.

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