

## APPENDIX 2: BIBLIOGRAPHY AND OTHER USEFUL PUBLICATIONS

- Managing health and safety aspects of research in higher and further education*, Education Service Advisory Committee, HSE Books, 2000, ISBN 0 7176 1300 3
- Everyone's guide to RIDDOR*, HSE31 (rev1), HSE Books, 1999, (single copies free; ISBN 0 7176 2441 2 for priced packs of ten copies)
- Guide to the Reporting of Injuries, Diseases and Dangerous Occurrences, Regulations 1995*, L73, HSE Books, 1999, ISBN 0 7176 2431 5
- 5 Steps to risk assessment*, INDG163 (rev1), HSE Books, 1998
- Consulting employees on health and safety: A guide to the law*, INDG232, HSE Books, 1996, (single copies free; ISBN 0 7176 1615 0 for priced packs of 15 copies)
- Safe work in confined spaces. Confined Spaces Regulations 1997: Approved Code of Practice and guidance*, L101, HSE Books, 1997, ISBN 0 7176 1405 0
- Electricity at work: Safe working practices*, HSG85, HSE Books, 1993, ISBN 0 7176 0442 X
- Health and safety in construction*, HSG150, HSE Books, 1996, ISBN 0 7176 1143 4
- Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved Code of Practice and guidance*, L24, HSE Books, 1992, ISBN 0 7176 0413 6
- The storage of flammable liquids in containers*, HSG51, HSE Books, 1998, ISBN 0 7176 1471 9
- Work with ionising radiation. Ionising Radiations Regulations 1999. Approved Code of Practice and guidance*, L121, HSE Books, 2000, ISBN 0 7176 1746 7
- Safe use of lifting equipment. Lifting Operations and Lifting Equipment Regulations 1998. Approved Code of Practice and guidance*, L113, HSE Books, 1998, ISBN 0 7176 1628 2
- Manual Handling. Manual Handling Operations Regulations 1992. Guidance on Regulations*, L23, HSE Books, 1998, ISBN 0 7176 2415 3
- Guidance on the Noise at Work Regulations 1989*, L108, HSE Books, 1998, ISBN 0 7176 1511 1
- Working alone in safety*, INDG73(rev), HSE Books, 1998, (single copies free; ISBN 0 7176 1507 3 for priced packs of 15 copies)
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- Safe use of work equipment. Provision and Use of Work-Equipment Regulations 1998. Approved Code of Practice and guidance*, L22, HSE Books, 1998, ISBN 0 7176 1626 6
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- Successful health and safety management*, HSG65, HSE Books, 1997, ISBN 0 7176 1276 7

## UNIVERSITY HEALTH AND SAFETY MANAGEMENT

### CODE OF BEST PRACTICE

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- Conducting meetings that are educative, informative and stimulate debate;
- Publishing guidance and information of benefit to member institutions.

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## APPENDIX1: ACCIDENT, INCIDENT AND ILL HEALTH INVESTIGATION

The purposes of accident investigation are to identify the immediate and underlying causes of an incident and improve the health and safety management system to prevent a recurrence, reduce financial losses and improve legal compliance. For these purposes to be achieved, each university must be able to capture the appropriate data, reach reasonable conclusions based on reliable evidence, and be able to implement the necessary improvements.

The process of accident reporting and investigation, while both intermittent and iterative, is the clearest opportunity for the university to learn what errors it is making in its health and safety management and to address these. Moreover, if the outcome of the accident investigation is incorporated into risk assessment activities, advantage can be taken of that process to reduce further the potential for reoccurrence.

It is for each university to determine how best to collect information about accidents and similar incidents, but it is recommended that this effort should be focused on the CSP and/or OHP; and it is for them to determine whether to inform the enforcing authorities.

At the departmental level, the Head of Department should ensure that all accident reports are sent to the CSP and/or OHP without delay, and should determine which accidents need to be investigated locally. Not all events need to be investigated to the same extent. Guidance may be necessary so that the gravity of the event is reflected in the seniority of the personnel involved because, while many accidents can be investigated by the immediate line manager or the departmental safety staff, more serious events must involve the Head of Department. Involving senior staff in the investigation of significant events is a practical demonstration of their commitment to promoting a positive health and safety culture.

The CSP and/or OHP will need to exercise professional judgement regarding which accidents require their input, and how thorough that investigation should be. At the end of the investigation, the university should know:

- The way things were and how they came to be that way;
- What happened; the sequence of events that led to a particular outcome;
- Why things happened as they did;
- Action needed to avoid a repetition.

#### Investigation of work-related ill health

Cases of suspected work-related ill health must be referred to the OHP. Self-referral should be encouraged to facilitate the early diagnosis of occupational disease.

It will be recognised that Heads of Departments have a crucial part to play in the initiation and development of this scheme. It is for them to:

- Decide how self-inspection is carried out and how to resource the process accordingly;
- Ensure that accident reports are investigated locally and forwarded promptly.

Most importantly, it is for them to be seen to contribute visibly to all aspects of local health and safety performance measurement activities.

## KEY HEALTH AND SAFETY PERSONNEL

### **The Vice-Chancellor/Principal**

The Vice-Chancellor/Principal has overall responsibility for health and safety matters in the university or college of higher education, and needs to ensure that there is a policy for health and safety which extends to all who may be involved in or affected by the institution's activities. The Vice-Chancellor/Principal must ensure that arrangements for monitoring, auditing and reviewing the success or otherwise of that policy, are put in place and maintained.

### **Governing body**

The term includes Court, Council or Board of Governors, which forms the executive governing body of the institution.

### **Senior executive officers/Pro-Vice-Chancellors/Vice-Principals**

Their duties include the requirement to review the effectiveness of health and safety management and generally plan the institution's strategy on health and safety and monitor implementation via the agencies described therein.

### **Head of Department/School/Division/Institution or Faculty Board**

These terms include all employees of the institution who are directly responsible to the governing body for their own work and that of their staff within a unit equivalent for administrative purposes to an academic department. The term includes heads of administrative departments, wardens of halls of residence, heads of service departments and the managers of such premises as may from time to time be under the administration of the governing body.

### **The Principal Investigator/research supervisor**

The Principal Investigator (PI) is normally the academic staff member who is in charge of funds given into his/her care either by the university directly, or by a research funding body or similar benefactor. The PI can therefore be assumed to know most about the planning, organisation and the actual work involved in research projects. PIs bear in large measure day-to-day responsibility for ensuring that the policy requirements of both the university and the department are implemented.

They should also assume responsibility for ensuring not only their own safety but that of anyone who might be affected by their own work, including the work of junior colleagues and students.

### **Competent persons**

Universities and colleges of higher education are required to have access to a competent person or persons to advise them on how to comply with health and safety legislation. This code of best practice uses the terms central safety personnel (CSP) and occupational health personnel (OHP) to encompass this function and it is recognised that these roles will usually incorporate more than one person. They may be appointed as health and safety advisers, safety officers, Directors of Safety Services or (depending on speciality) occupational health advisers, occupational health nurses, or occupational physicians etc.

### Higher and Further Education Advisory Committee (HiFEAC)

This is one of the advisory committees set up by the Health and Safety Commission (HSC) to consider health and safety issues in specific sectors of employment. Its terms of reference are to advise the Commission on:

- The protection of people at work from hazards to health and safety arising from their occupation within the field of education;
- The protection of other people, including students and members of the public, from directly related hazards arising from such work activities.

of Department ensures they receive prompt attention.

In areas where the risk assessment has identified that there are significant risks, additional checks must be made. Risk assessment may have concluded that to ensure health and safety in the long term certain specific checks must be made. This might have given rise to 'performance standards'. In such a case, the performance standard should specify who is responsible for what action, what precisely they are responsible for, when and with what frequency they must act (or in what circumstances), what outcomes might be expected, and how adequate checks can be made to ensure that the task has in fact been completed. This in turn should result in the production of a more sophisticated form of checklist, which draws the inspector's attention to the need for particular questioning in a specific area of concern. For example, there might be a laboratory where highly toxic materials are used, a workshop where machinery safeguards need to be adjusted for each user, or fieldwork in remote areas.

In each of these cases, protocols based on risk assessments, should identify *crucial* elements of protection, how protection can be assured, and the checking process designed to ensure that they are in place and effective. Departmental inspections should try to uncover the root causes of any unsatisfactory conditions found and make positive recommendations for improving the situation. The formal report produced by the inspection team is very important because it provides the basis for the Head of Department to decide on remedial action and facilitates monitoring by the CSP and/or OHP.

In a university department with a high-risk potential, it will be beneficial for the Head of Department to institute the following inspection process encompassing all departmental activities in all its locations:

- The departmental senior management team should associate themselves personally with the exercise, resource it accordingly and contribute to the planning. All those taking part should be aware of the explicit support of the Head of Department;
- Departmental safety staff should lead the exercise;
- The Head of Department should join the inspection team perhaps once a year;
- CSP and/or OHP should be included when necessary;
- Trade union safety representatives (or other employee representatives) should be invited to take part;
- A colleague from a separate but similar department could be included occasionally to give a fresh perspective.

As a result of the activities of such inspection teams, a reporting system must be created which:

- Informs the Head of Department that the work is taking place on schedule, the nature and scope of the faults discovered, and what remedies are proposed (or have been implemented);
- Informs university management of significant defects that have resource implications;
- Informs the CSP and/or OHP of progress generally.

specify some of these issues; others will come from perceived best practice. The methodology for making best use of these is discussed in Section 3.4.

### 3.4 Inspections

There are several good reasons for requiring each university department to examine critically its own health and safety performance. These include:

- Providing reassurance to the governing body, and line management generally, of the effectiveness of the health and safety policy and plans;
- Re-evaluating the effectiveness of risk assessments and performance standards (at generic, university level and locally);
- Identifying unsafe conditions and behaviour;
- Assessing local management capability for appraisal purposes;
- Permitting the Head of Department to demonstrate leadership and personal commitment to health and safety management in the department;
- Reawakening interest in the local health and safety programme.

It is for each Head of Department to determine how the departmental health and safety performance measurement system should operate. Like health and safety performance measurement at the university level, departmental activities should contain both active and reactive elements. For example, Heads of Departments need to be confident that:

- They will be notified of an accident arising out of departmental activities;
- It will be investigated by an suitably senior member of staff (or even personally) and a report passed on to the CSP;
- Similarly, that suspected work-related ill health is referred promptly to the OHP.

This is likely to be straightforward, even in a large department, because accidents tend to be relatively rare events. What is more difficult to address is the need of the governing body to ensure that the necessary precautions are in place at departmental level, (and indeed at each laboratory, workshop, teaching room or fieldwork site), that they are effective in practice, and that the law is being complied with on a continuing basis. Clearly some reassurance can be gained from the work of the CSP and/or OHP who from time to time will visit the department and be able to comment on existing practices and offer guidance on improvements. However, in a large university such visits could be infrequent and the conscientious Head of Department *must* seek reassurance on a regular basis.

The simplest form of self-inspection can be organised at the laboratory or workshop level. This consists of a weekly or monthly examination by staff on site to make sure that certain simple precautions have been taken, materials are stored safely, and that housekeeping standards are being maintained. In non-scientific departments or areas where the work is primarily office based, this type of approach is recommended. A set of simple checklists (perhaps produced centrally by the CSP and/or OHP) will suffice. These checks should reassure all occupants that their health and safety remains high on the departmental agenda. Problems can be quickly spotted before they can escalate, and the prudent Head

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## FOREWORD

This code of best practice is designed to help those who are directly charged with the successful operation of universities and colleges of higher education in the United Kingdom.

Among the many duties of Vice-Chancellors and Principals is the management of health and safety in their institutions. It is not one which they can afford to ignore. Successful health and safety management also depends on the commitment of the senior officers of the university. They have to demonstrate the leadership necessary to achieve and maintain satisfactory standards of safe and healthy working.

This code of best practice has been developed through the co-operation of the health and safety professionals who represent the Universities Safety Association (USA), with the Health and Safety Executive (HSE) and after consultation with senior officers and trade unions. Thanks are due to the health and safety professionals whose energy and commitment have seen this project through to completion.

The model of health and safety management put forward by this code follows current best practice. I commend it to you wholeheartedly, and endorse it as the standard for all universities and other institutions of higher education.

***Professor R Evans***

*Chairman, Universities and Colleges Employers Association  
Health and Safety Working Group*

*August 2001*

5. Develop a coherent policy and approach to risk control. If risks are controlled consistently throughout the department and across the university as a whole, then everyone comes to know what standards are expected, and gains confidence in ensuring that these controls remain effective;
6. Aim to protect everyone who might be exposed to the risk. Do not forget people particularly at risk;
7. Give everyone the same opportunities for training and gaining an understanding of the risks of the work;
8. Develop local health and safety culture by concentrating on good communications and leadership.

### ***3.3.4 Recording the assessment***

**If five or more employees are involved in any work, legislation requires the significant findings of the risk assessment to be recorded.**

Records can be kept on paper or electronically. If electronic recording is chosen, it is important to inform those 'at risk' personnel who may not have access to computers. The records should show that:

- A thorough check was made;
- All personnel who might be affected were considered (and any high risk personnel included);
- All the significant hazards were dealt with;
- Reasonable, consistent precautions were put in place, and the residual risk was acceptable;
- The effectiveness of the controls can be assured over time;
- The minimum legal standards have been reached.

### ***3.3.5 Reviewing the assessment***

All the regulations require that the assessment is reviewed and revised as necessary. This must be done if there is cause for suspicion that the 'assessment is no longer valid or there has been a significant change', or words to that effect. Legislation also states that the assessment must be reviewed 'regularly'. A significant change might include:

- The introduction of a new chemical process;
- Several new staff joining;
- New information from a supplier about the risks of the process;
- New guidance from the CSP and/or OHP or the regulators about the legal standards in force, etc.

### ***3.3.6 Devising workplace precautions***

The process described above will result in the production of formal risk assessment documents (to satisfy the law) at both university and department level. There will also have been the production of performance standards for those health and safety critical issues that demand regular attention. The law will again

by means of a formal 'permit to work', or similar management control, or not) the assessor must consider the fact that cleaners are often in the buildings before other staff arrive. Are there any people who have a sensory or mobility impairment that might make them more at risk? Remember that legislation requires the assessor to take into account the effect of the hazard on persons under 18, pregnant workers and nursing mothers.

### 3.3.3 Evaluate the risks

This is the assessment itself. What is required is a value judgement about whether the precautions that already exist (if any) are, in fact, enough to prevent harm. It may be so; if not, more will have to be done.

**The law does not expect everything to happen at once – it allows for the planning and prioritisation of remedial work (as long as the risk is tolerable) – but the risk must not be ignored.** As the assessment proceeds, therefore, the following questions ought to be answered:

- Can the hazard be eliminated altogether? If not, how best can it be controlled?
- Have precautions complied with the law, in the circumstances?
- Are the precautions at least as good as those found in places doing similar work?
- Is there anything else that can be done to reduce the risk even further?
- Can any immediate improvements be made?

The remaining risk areas should then be prioritised.

The bottom line is whether the judgement is reasonable and practicable, based on solid evidence, and whether it meets the minimum legal standards.

There are several ways of approaching the actual evaluation of the risk:

- Primarily quantitative; for example assessments under the noise regulations, genetic modification and assessing exposure to some toxic substances;
- Evaluation by reference to established criteria, for example manual handling and ergonomic issues generally;
- Guidance or generic assessments; for example safeguarding of machinery, working at heights and campus transport.

What is actually done to reduce or eliminate the risks clearly depends on each set of circumstances. As a general guide, however, the risks should be controlled by the application of this hierarchy of principles:

1. Eliminate the risk completely. Try to find another way of doing the work, or substitute a process or system of work which is inherently less risky;
2. Combat risks at source. It is much easier to reduce a risk (say, a dust or chemical fume) by containing it, rather than trying to gather it and remove it by ventilation;
3. Adapt the work to the individual (rather than the other way round);
4. Take advantage of technological advances to improve health and safety;

## SECTION 1: INTRODUCTION

Universities and colleges of higher education are large and diverse organisations. They are subject to a similarly wide variety of legal and financial constraints, as well as having to operate in an increasingly competitive environment. They tend not to have the same rigid lines of managerial control found in industry, so ensuring compliance with health and safety legislation is not a trivial task. This guidance has been written to simplify this task, to make compliance more easily measurable and to ensure proper managerial control of the significant risks in higher education establishments.

The elements of the safety management process are simply described by their necessary outcomes:

- Clear policies on health and safety, linked to other strategic corporate objectives which set the direction;
- Systematic responsibilities and accountabilities for staff;
- A communication and training infrastructure that supports these policies;
- A systematic approach to the incorporation of health and safety management into other university planning activities;
- Sufficient resources for the effective implementation of the plans;
- A coherent set of safety performance measures;
- The ability to review the working of the system and learn from experience.

These elements can all be expanded, but are seen as the minimum consistent with current legal obligations and the desire to minimise loss. In the competitive higher education sector in the UK today, the institution that accepts these precepts will thrive: the institution that does not, or only pays lip-service to them, is gambling with its resources and the people who work and study there.

### 1.1 How to use this guidance

This guidance takes as its basis the standard guidance on health and safety management issued by the Health and Safety Executive (HSE). It promotes the principle that health and safety in universities can be managed in exactly the same way as research and teaching, or finance, or human resources. Indeed, the law demands as much.

Readers familiar with quality management practice should find nothing new here: quality management and health and safety management are converging management disciplines. However, it is essential for senior managers to appreciate that it is their personal commitment to the success of the safety management system in their own institution that, more than anything else, determines its overall success. University safety and occupational health professionals can advise on the general architecture of the system and its components, but it is for senior managers to demonstrate visibly that efficient and effective safety management is a necessary aspect of everyday university management in their institution.

This introduction presents an overview of the importance of health and safety management, and describes the core principles essential to a successful

management strategy. Section 2 takes a closer look at developing and implementing health and safety policies at an institutional level; while Section 3 gives a detailed description of the actions that must be taken at the departmental level to ensure the success of the overall strategy.

The guidance contained in this document is equally applicable to universities and colleges of higher education in the UK. However, the term 'university' has been used throughout, for ease of reading.

## 1.2 Corporate safety management

Senior management is increasingly expected to deliver results through a comprehensive business strategy, to drive continuous improvement in a highly competitive market through performance standards and benchmarking, and to adopt a methodology that relies heavily on self-assessment and self-regulation. Today, effective management of health and safety is seen as fundamental to delivering excellence in research and teaching. **It is essential, therefore, that health and safety in a university should be managed as an integral part of the corporate management package.** The visible commitment of senior management has a vital part to play; indeed this commitment is the main predictor of success in health and safety management. Effective management of these issues will promote the perception of the university as an ethical and law-abiding employer, and one which fosters business excellence as a corporate value in order to gain legitimate competitive advantage.

The senior staff of a university are the individuals primarily charged with ensuring that their university fully discharges its legal, financial and humanitarian responsibilities. The first part of this guidance provides the framework by which this can be achieved strategically. Section 1.3 (Health and safety management: best practice standards) sets out the core principles indicative of best practice in health and safety management in a university, supported by performance indicators backed up by measurable evidence.

The Health and Safety Executive's (HSE's) *Successful Health and Safety Management* (HS(G)65) (see Appendix 2: Bibliography and other useful publications) should form the basis of a university's health and safety management system.

Senior staff must address these key questions:

- How can they ensure that their commitment to the management of health and safety is both sincere and visible?
- How can they use the university's communications strategy to promulgate unambiguously the strategic direction of the health and safety policy?
- How can existing organisational responsibilities and relationships be augmented to include specific responsibilities for health and safety at each management level, in order to promote a thriving health and safety culture and ensure management control?
- How can the process of systematic risk assessment be used to identify suitable performance standards and thus eliminate, or at least control, the risks of work activities in the university?

and that the precautions are adequate. This is especially true in research activities where risk assessment may involve consideration of less well-characterised or even entirely novel hazards. It is therefore for supervisory academic and technical staff (and their teams), who know the work well enough, to make decisions about the risks and appropriate precautions, and must also be prepared to justify their conclusions.

The statutory provisions for risk assessment describe them as having to be 'adequate' or 'suitable and sufficient'. They tell the assessor not to be overcomplicated. In deciding the amount of effort to be put into assessing risks, the assessor has to judge whether the hazards are significant, and whether they are covered by satisfactory precautions so that the residual risks are small. In practice, an assessment may be required before any new work can begin.

In broad outline, the steps in performing a risk assessment are as follows:

- Decide on the hazards to be controlled;
- Decide who might be harmed and how;
- Evaluate the risks – deciding whether existing precautions are adequate, or whether more needs to be done;
- Record these decisions;
- Review the assessment and revise if necessary.

When developing an assessment strategy for the university as a whole, or for a large or complex department, it can be useful to begin by classifying the work activities.

### 3.3.1 What hazards need to be controlled?

It may be possible to list a number of hazards as a desktop exercise; for example, the area to be examined may contain chemicals, or have manual handling requirements. However, there is no doubt that the most productive way to assess hazards is to walk round the area and try to imagine what could reasonably be expected to cause harm. Here are some other ways of spotting hazards:

- Watch what people are actually doing at work – ask them what they are doing, and why. Ask them what they think are the local health and safety issues;
- Seek out any hazards that have caused problems in the past;
- Draw on information from HSE, professional associations or trade unions;
- Check on what the law requires (think of this as a minimum standard of performance);
- Consult manufacturers' and suppliers' information.

In effect, regulations require the examination to include whatever could cause harm to people; thus at the outset *all* possible hazards must be considered.

### 3.3.2 Decide who might be harmed, and how

Consider the effects of the hazard on staff, students and visitors such as maintenance personnel. If overnight running of experiments is permitted (whether

or area. These will generally be part-time (in large high-risk departments full time safety staff may be necessary) and universities should recognise the effort involved in the execution of these additional functions. In some cases, the provision of such staff is mandatory; for example, it is a statutory requirement to appoint *competent* Radiation Protection Supervisors to control and supervise work with ionising radiations.

Where applicable, universities may appoint competent staff to ensure safe practices are employed when working with lasers, chemicals, biological agents, electricity or where a risk assessment identified a need for manual handling training and supervision.

The Head of Department will automatically be the recognised departmental (or area) safety staff, by default, if a formal appointment is not made.

### 3.2 Safety planning

The purpose of planning in health and safety management, as elsewhere in university management generally, is to make sure that a specific project is successfully completed on time, that the necessary resources are available when required, and that they are correctly used. Safety planning also helps to focus on the objectives of the institutional health and safety policy and legal compliance. Much of the detail for the planning process will come from risk assessment. The most costly resource is likely to be staff time. However, without an overall planning strategy, the risk assessment process will be haphazard and fragmented. In short, the health and safety management system will be much less effective in reducing the impact and frequency of accidents and controlling losses generally.

### 3.3 Risk assessment

A risk assessment is really nothing more than a careful examination of what could cause harm to people, so that decisions can be made about the effectiveness and adequacy of the precautions already in place, or whether more has to be done. Sometimes, of course, what has to be done is dictated by the law, and sometimes the law requires different action in different situations. Risk assessments are the responsibility of management, and Heads of Departments must ensure that they are done within their own area of control.

In risk assessment, two everyday terms are used to convey specific situations:

- **Hazard** – a source or situation with a potential for harm in terms of injury or ill health, damage to property, damage to the workplace environment, or a combination of these;
- **Risk** – a combination of the likelihood and consequence(s) of a specified hazardous event occurring.

From these definitions, therefore, the process of risk assessment is defined as 'the overall process of estimating the magnitude of risk and deciding whether or not the risk is tolerable'.

A tolerable risk is one that has been reduced to a level that can be endured, having regard to legal obligations and health and safety policy.

Everyone who acts upon a risk assessment owes it to themselves at least to make sure that the assessment is relevant and an accurate reflection of the work,

- How can university planning activities take health and safety into account?
- How can health and safety performance be measured to reveal the strengths and weaknesses of the health and safety management system, in order to indicate routes towards improvements?
- How can the processes of independent audit and review be used to facilitate an understanding of the university's successes and failures, so that the lessons can be applied in a cycle of continuous improvement?

This guidance clearly demonstrates to senior staff that health and safety management is important enough for them to become personally involved. It is not an optional extra to the overburdened manager, but a vital and central aspect of successful university management.

### 1.3 Health and safety management – best practice standards

PRINCIPLES	INDICATOR (Targets or Goals)	EVIDENCE
<b>Commitment</b> Universities achieving best practice in health and safety management are fully committed to controlling risk and preventing harm to people.	1 Health and safety is integrated into the university's core business management activities.	1 The university's corporate strategy statements and plans include health and safety aims and objectives.
		2 The governing body approves the strategic health and safety aims and objectives and requires periodic written reports on health and safety performance.
		3 Senior staff demonstrate their personal commitment to health and safety, leading by example and providing unambiguous direction.
		4 Senior staff can describe strategies they have put in place and their programme for continuing improvement.
	2 The university is committed to establishing and maintaining a properly resourced occupational health and safety management system.	5 An appropriate health and safety management standard has been formally adopted and incorporated into the appropriate strategies.
		6 The resources necessary to establish and maintain the occupational health and safety programme are recognised and allocated.
<b>Policy</b> Universities achieving best practice in health and safety management use effective health and safety policies to set a clear direction.	3 The health and safety policy has the unequivocal support of the governing body and the Vice-Chancellor/Principal.	7 There is a written health and safety policy which supports the corporate strategy, signed by both a representative of the governing body and the Vice-Chancellor/Principal.
<b>Organisation</b> Universities that are achieving best practice in health and safety management set up effective management structures and arrangements for implementing policy.	4 All staff understand their health and safety responsibilities and are held to account for meeting them.	8 Responsibilities for health and safety are devolved successively through a health and safety management structure and written down.
		9 There are arrangements for appraising individual's health and safety performance.
	5 The university's health and safety arrangements are sustained by effective communication and the promotion of competence, enabling staff to make a responsible and informed contribution.	10 Information on hazards, risks and control measures; the university's health and safety policy and strategy; and the implementation plan is widely communicated.
		11 There is access to competent health and safety advice for both management and staff.
		12 There is a health and safety training strategy and plan.

their duties in a safe manner and in a way that does not endanger them or any others.

#### 3.1.3 Principal Investigator (PI)

Excellence in teaching and research requires sound planning and preparation. This must be seen to include planning and implementation of adequate preventive and protective measures to ensure safety. The Principal Investigator (PI) is normally the academic staff member who is in charge of funds given into his/her care either by the university directly, or by a research funding body or similar benefactor. The PI can therefore be assumed to know most about the planning, organisation and the actual work involved in research projects. PIs bear in large measure day-to-day responsibility for ensuring that the policy requirements of both the university and the department are implemented. They should also assume responsibility for ensuring not only their own safety but that of anyone who might be affected by their own work, including the work of junior colleagues and students.

The PI needs to understand the requirements of university and local safety policies. For new senior researchers there may well be a significant training resource implication.

PIs have an essential part to play in risk assessment. This is both in terms of the risks arising out of their project(s) as a whole, but also in terms of educating their junior colleagues to become proficient in assessing the risks inherent in their own work. **Before applying for research grants, or adopting an experimental protocol, the PI must consider how the proposal could affect people's health and safety: once the work has actually started, it may be too late.**

PIs (and indeed all staff who have a supervisory role) also need to consider how acceptable standards of safety behaviour can be inculcated in their students, both undergraduate and postgraduate, in the laboratory, workshop or field. In the case of undergraduates, it may be acceptable to include safety guidance in laboratory notes, but close supervision will certainly be necessary. Postgraduates may also require guidance and supervision.

#### 3.1.4 Laboratory responsible person

Eminent PIs may attract many students; so many in fact that regular contact is difficult, even on academic matters. In cases where a PI has more than 4 associated postgraduates, the Head of Department should appoint a 'laboratory responsible person' from among those staff whose regular presence in the laboratory can be assured. This person will probably be a member of the junior academic or senior technical complement of the department. They should be given authority to suspend work if safety is likely to be compromised, but should in any case be encouraged to proffer advice on all matters relating to health and safety in the laboratory. This principle holds well in workshops and similar activities and in fieldwork (i.e. off-campus) activities too.

#### 3.1.5 Departmental safety staff

Certain members of departmental staff should be given special duties relating to day-to-day health and safety management issues within their department, building(s)

- Formally delegate the tasks (and the associated record keeping aspects), of departmental health and safety posts to appropriate members of the departmental staff;
- Establish good lines of communication between all persons concerned;
- Encourage and support the attendance of appropriate members of the department on relevant internal and external health and safety training events;
- Make full use of the technical knowledge, professional advice and skills available;
- Allocating the necessary resources – both in terms of time and money – to the health and safety staff appointed;
- Devise and implement phased order of priority plans for expenditure of finance or effort to solve problems which cannot be resolved at one particular time;
- Take personal action – or empower members of the departmental staff to act – to suspend or stop any departmental activity that is dangerous or not carried out within departmental health and safety policy;
- Actively monitor health and safety performance.

**Active monitoring is the simplest way for Heads of Departments to demonstrate visible commitment.** By being seen to get involved in health and safety inspections, investigations and tours, Heads of Departments show that ensuring health and safety is an essential part of departmental life.

The head of any university department has many day-to-day duties. In addition to the tasks outlined above, they may have specific jobs relating to legislative requirements. It is therefore vital that the Heads of Departments are supported by their staff, and that departmental health and safety management is allocated adequate resources and there is training in the management of health and safety. The head of a large and/or scientific department should appoint competent staff to perform many of the day-to-day health and safety management activities. This person(s) should be seen as speaking with the authority of the Head of Department, and should follow an agreed remit in pursuance of local health and safety policy.

**3.1.2 Academic staff**

All staff shall conduct their activities, and those activities over which they have control, in a safe, competent manner and in accordance with the university's health and safety policy and any associated codes of practice. They must co-operate with the Head of Department to ensure safe working practices are employed at all times.

Academic members of staff know most about their research projects and associated work activities, as well as teaching in their discipline. They must, therefore, not only ensure their own health and safety but that of anyone who might be affected by their own work, and the work of junior colleagues and students.

**It is a statutory requirement that all staff are competent and have received the necessary instruction, training and guidance to carry out**

PRINCIPLES	INDICATOR (Targets or Goals)	EVIDENCE
	6	<p>The university's health and safety arrangements are underpinned by effective staff involvement and participation.</p> <p>13 Senior staff receive health and safety management training.</p> <p>14 All staff are provided with health and safety training commensurate with their level of responsibility.</p> <p>15 There are arrangements for the involvement and participation of all employees.</p>
<p><b>Planning</b> Universities achieving best practice in health and safety management adopt a planned and systematic approach to implementing health and safety policy.</p>	7	<p>The university has clear health and safety aims, objectives and standards based on the principle of preventing harm through identifying, eliminating and controlling hazards and risks.</p> <p>16 Arrangements are in place for systematic hazard identification and risk assessment in all areas of operation.</p> <p>17 There is a written health and safety plan (or programme) which sets objectives, responsibilities and timescales.</p> <p>18 Systematic risk assessment is used to prioritise the contents of the health and safety plan/programme.</p> <p>19 Written performance standards are established and used to measure achievement.</p>
<p><b>Measuring and reviewing performance</b> Universities achieving best practice in health and safety management know the strengths and weaknesses of their current arrangements.</p>	8	<p>Performance is monitored against plans and standards to reveal when and where improvement is needed.</p> <p>20 There are proactive arrangements in place to measure performance and compare it with pre-determined plans and standards.</p> <p>21 There are procedures for reporting and investigating accidents, injuries, ill health and near misses.</p> <p>22 There are arrangements for implementing remedial action following all monitoring activities.</p> <p>23 There are periodic independent audits of the whole management system.</p> <p>24 Performance is systematically reviewed based on the findings of monitoring activities and audits.</p>
	9	<p>The university learns from all relevant experience and applies the lessons through the planning process.</p> <p>25 The findings of the review process are used to revise the health and safety policies, strategies and plans.</p>

## SECTION 2: CORPORATE SAFETY MANAGEMENT – POLICIES, FUNCTIONS AND PROCEDURES

It is the responsibility of the governing body of a university, through its officers, to ensure that statutory requirements are met and appropriate standards applied. This requires the demonstration of both leadership and commitment by senior management and the full integration of health and safety into the policies and practices of the university. Safe working practices must be agreed and instituted following effective consultation at all levels. Performance must then be monitored and reviewed by management to ensure that this commitment is met.

Employees and students should always work in accordance with the university's health and safety policy. A senior university officer, e.g. the Vice-Chancellor, Head of Department or Chair of the Health and Safety Committee, must have absolute authority to stop or suspend any dangerous activity or practice if necessary. In cases of a serious breach of the health and safety policy the university disciplinary procedures should be invoked.

### 2.1 Initial review

Because safety management is essentially a continuous cycle of 'plan-do-check-act', few universities will start as a totally 'green field' site – although some might come close to this in setting up new or satellite campuses.

The following key questions set the scene and show where the initial effort needs to be made:

- What are the existing safety management practices and procedures?
- What is the record of accidents and other losses resulting from lack of managerial control?
- Have all relevant legislative requirements been identified? What is the likely impact of each?
- What is considered to be the current best practice in key areas? How, therefore, does local performance compare?
- How effective and sufficient are current resources devoted to safety management?
- What are the resource implications of what is planned?
- How will improvements be tracked?

With so many sets of safety regulations relevant to universities, good compliance is unlikely if the task is tackled in a piecemeal or haphazard fashion. It is only by recognising that health and safety is a legitimate management function that it can be addressed logically and successfully. This, therefore, demands confidence and commitment.

### 2.2 Health and safety policies and consultative processes

A formal statement of health and safety policy is required. Traditionally this

## SECTION 3: HEALTH AND SAFETY AT THE DEPARTMENTAL LEVEL

### 3.1 Roles and responsibilities

#### 3.1.1 Heads of Departments

Heads of Departments usually have oversight of resources devolved from the governing body. As such, they have a duty not only for the application of these resources, but also its *safe* application. The term Head of Department means not only the head of each academic department of a university but all employees and others of the university who are responsible to the governing body for their own work and that of staff within a unit equivalent, for administrative purposes, to an academic department. The term thus includes PIs, heads of administrative departments, wardens of halls of residence, heads of service departments, and many similar positions. All these individuals should be held accountable for their performance as managers.

However, they are also employees of the university, sometimes working within severe constraints, so it is prudent for the governing body to monitor how such managers perform in health and safety terms.

Heads of Departments should take the lead in driving the health and safety programme within their area of responsibility. Heads of Departments must demonstrate visible commitment by acting in the following way:

- Accept their own responsibility in health and safety, and encourage colleagues to do the same;
- Set the local health and safety policy based on institutional requirements and their own assessment of the risks inherent in the work of their department. (Through this mechanism, Heads of Departments shall inform their staff of their own duties, the arrangements for the introduction and maintenance of measures designed to identify, monitor and control risks, carrying out risk assessments, and the process of health and safety planning in the department);
- Make health and safety training an indispensable element of departmental teaching at all levels;
- Provide the necessary information, instruction and training to enable departmental staff to perform their job in a safe manner;
- Ensure the maintenance of appropriate records;
- Ensure the proper supervision of students;
- Adopt good health and safety advice from CSP, OHP and from departmental health and safety staff as appropriate;
- Encourage and consult safety representatives (even if the risks do not justify a committee);
- Establish local consultative health and safety arrangements or, in low risk departments, place health and safety as a standing item on the agenda of the departmental management committee, if a departmental health and safety committee is not justified;

Ultimately, it is for the governing body to decide how best to marshal the resources applied to this vital aspect of its activities. It has to develop the health and safety management system in line with its other strategic objectives, to be able to learn from experiences, and to improve performance.

takes the form of a written document in three parts:

- A statement of philosophy, or approach, which tells the reader of the views that senior managers have towards health and safety at work, and how they intend to make sure that safety is maintained and improved;
- How the organisation will be structured and the policy implemented;
- How this will operate on a day to day basis; how policy is developed; and in general how the health and safety management system is monitored and improved.

Even a small university will have many departments with widely differing risks that have to be controlled effectively. In policy terms, therefore, the central statement must contain data that informs the reader that further information, instruction and guidance can be found elsewhere.

### ***2.2.1 Statement of intent***

The statement should affirm:

- The institution's commitment to attain a high standard in health and safety;
- That health and safety is a legitimate senior management issue (and should identify who has overall responsibility for health and safety (and deputy if appropriate), and who is responsible for policy formulation);
- That health and safety is a core management function, and a commitment towards integration of health and safety into other management tasks, including planning;
- That managers are obliged to demonstrate leadership in health and safety management (and should establish the responsibilities of managers at all levels in policy implementation);
- A commitment to the provision of appropriate resources;
- A commitment to measure health and safety performance;
- A commitment to review and develop policy;
- A commitment to maintaining effective systems of consultation and communication with employees, including safety representatives, on health and safety matters;
- A commitment to ensuring the competence of employees and students;
- That legal requirements are the minimum acceptable level of performance;
- A commitment to progressive improvement in health and safety performance;
- The contribution that employees can make to policy implementation.

The statement should be signed by the Vice-Chancellor or Principal

### ***2.2.2 Organisation***

The second part of the core statement of health and safety policy should specify who will implement the policy. The objective of this part is to ensure

that everyone knows:

- Who is responsible for particular aspects of the success of the safety management system;
- How their own responsibilities interact with those of others;
- How they might be held accountable for their own acts or omissions at work.

Responsibilities for health and safety should parallel whatever line management structure the university has in place. For many universities the simplest way to inform those involved of their health and safety responsibilities is to refer to an organisation chart, or flow diagram. Such a chart can assign broad responsibilities to each level of management, and particular individuals can be assigned specific responsibilities, either by name or job title. Each level of management ought to be demonstrably accountable to the one above and responsible for the one(s) below. When any elements of line management change, or a more general re-organisation takes place, as does happen from time to time, then health and safety responsibilities may need to be reviewed to take account of these alterations.

There are some personnel in this process whose actions affect the entire organisation, or who have a special part to play. Their responsibilities must be specified in some detail. This might include:

- The governing body – outline the means by which it oversees the effectiveness of health and safety management;
- The Management Oversight Group – many universities have created a small committee of senior executive officers to drive and guide the effective implementation of the policy;
- A senior executive – assigned personal responsibility for the success of the health and safety management system, this person thus becomes more intimately involved in the effective implementation of the policy;
- Heads of Departments and academic supervisors – have a vital part to play;
- Trade union-appointed safety representatives and representatives of employee safety – can make a contribution, and the policy should explain how they are to be consulted (through a consultative Health and Safety Committee and by other means);
- The structure and function of the university's health and safety advisory services.

Where possible, these 'specified responsibilities' should take the form of 'performance standards'. That is, the responsibilities ought to be linked to particular actions, time scales and measurable outcomes. This may be no more than well-maintained committee minutes with assigned 'actions', but for safety critical activities that have to be completed on certain dates, a more formal approach is needed.

Other aspects of organisational structure that could affect the successful implementation of the policy should be addressed too. These might include:

- How these various stakeholders communicate between themselves and with the broader university community;
- How the competence of staff can be assured.

Guidance from the HSE on the independence of auditors suggests that the term means simply 'independent of the area under examination'. While this is good practice for any controlled audit programme, if the area under scrutiny is the whole university, it makes sense to consider inviting an outside auditor from a sister university to undertake the audit.

If a common audit system is used then the results of the various sections of the audit can be benchmarked, and valuable insights gained. The external auditor should therefore be a senior health and safety adviser and/or an occupational health professional from a sister institution, whose independence and professionalism can be relied upon.

The auditor must be given clear instructions as to the scope and requirements of the audit. There may be need for extra resources to be made available temporarily. However, any inconvenience will undoubtedly be outweighed by the value of both the exercise *per se* and improvements to be gained by implementing the recommendations of the subsequent audit report.

#### **2.4.4 Reviewing the health and safety management system**

Whatever form the health and safety management system takes, it is unlikely to remain unaltered over time. This is because, as the management and organisational structures of the university change, so too should management of health and safety. Therefore, senior management should review the health and safety management system periodically to ensure its continued suitability, adequacy and effectiveness.

A period of rapid change or expansion might demand an annual review. For most other circumstances, a review period of four to five years should suffice.

To be effective, the review process should consider all the relevant information available. This might include:

- Existing health and safety policies and supporting documentation, such as health and safety plans;
- Reports from the consultative Health and Safety Committee and management oversight group;
- Report from the CSP and/or OHP containing:
  - Overview of the health and safety audit programme;
  - How the university performs against its benchmarking partners;
  - How health and safety is perceived by staff;
  - Accident and ill health history since the previous review;
  - The university's strategic plan for the medium/long term.

The task of the reviewer(s) is to synthesise this data in such a way as to ensure that the structure of the health and safety management system (and the resources applied to it) remains appropriate to the university's strategic plan. The outcome of the review process should subsequently be presented to the governing body. Any element of the health and safety management system might be a candidate for further examination, and it is for the governing body to determine the resources and time scale for any remedial action.

### 2.4.3.1 Benchmarking

Health and safety benchmarking is a programme of comparing processes and performance with others. It is not simply about copying sister institutions that appear to be doing better. Benchmarking should involve continuous learning; learning about one's own university and others, and striving to foster the university as a learning organisation. In health and safety management terms, benchmarking can reduce the incidence of accidents, improve legal compliance and cut compliance costs.

Health and safety benchmarking is a five-step process:

1. **Decide what to benchmark.** Benchmarking can be based on both processes (how things are done) and performance (the results of what is done). The latter may well indicate priorities, but the former will probably provide better long-term learning opportunities;
2. **Analyse the current situation.** Consideration must now be given to the standards appropriate to what is being measured; both quantitative and qualitative measures can be used depending on the topic;
3. **Select suitable partners.** One or several partners may be chosen. A large university may find ways to benchmark internally between departments. For most universities it is more profitable to select sister institutions performing similar functions and with similar management activities. It is reasonable for there to be rough parity in what partners do and how they do it, but ideally a prospective partner should have made significant developments in some aspects of safety management;
4. **Work with these partners.** Be realistic and do not expect too much from an exploratory visit. Ensure that comparisons are valid. Respect the partners' confidentiality, and thank them for their assistance;
5. **Act on the lessons learned.** Devise an action plan based on what has been learned. This has to fit in with the institution's existing health and safety management process and practices.

Success in health and safety benchmarking depends on the following criteria:

- Commitment and perhaps extra resources from senior management;
- Commitment from departmental management and employee groups;
- Commitment by participants to an open and sharing approach to the exercise;
- An ability to identify the university's strengths and weaknesses;
- An ability to make valid comparisons;
- Proper planning and preparation.

### 2.4.3.2 External audit

Just as university finances are periodically audited by an authoritative outside agency, so the health and safety management system will benefit from external scrutiny. A periodic review of the effectiveness of the system as a whole, or the need to review or update the health and safety policy may prompt such an audit.

### 2.2.3 Arrangements

The third part of the health and safety policy should be a description of the day-to-day arrangements for carrying out the policy. This might include a consideration of the following points:

- Policy formulation and standard setting (how and by whom);
- Strategy for, and structure of, the risk assessment process;
- Institutional and departmental health and safety publications;
- Arrangements for monitoring and reviewing the effectiveness of the policy at the various levels of university management;
- Accident and ill health reporting and investigation.

This section can be any desired length. Some universities have chosen to include generic risk assessments as a physical part of the policy at this point.

**Legislation requires that the policy be brought to the attention of all employees.** Clearly in a large organisation it can be problematic to distribute a copy physically to each employee. Some may choose to do this if they feel that the cost is justifiable and the logistics acceptable. Others may rely on different methods to ensure that the essential message reaches those who have responsibilities under the policy. Whichever plan for distribution is adopted, it will need to be such that any subsidiary documentation can follow in due course. Many universities publish their own guidance on risk assessment. Some will wish to have this published together with the central policy; others will publish separately. In either case, paper copies can be supplemented by electronic publication on the university's website. This mechanism has the advantage that it can easily be brought to the attention of a targeted audience, and the content can be changed quite quickly as circumstances change. On the other hand, there may be areas of the campus not connected to the main network and for them paper copies may always be required.

### 2.3 Roles and responsibilities – health and safety as an integral function of management

Organising for health and safety is the process of establishing and maintaining responsibilities and relationships that promote a positive health and safety culture and implement the health and safety policy.

Each individual staff member bears some responsibility for health and safety. This may be simply the core legal duty as an employee to co-operate with the university. However, any university employee acting in a managerial or supervisory capacity bears additional management responsibilities. The more senior the appointment, the more onerous the responsibility. The level of that responsibility is directly linked to the level of control. In health and safety terms the manager/supervisor will be responsible for those people and activities they are expected to control.

In developing a successful organisation for health and safety management, the university's most senior managers should consider whether:

- Responsibility and authority for health and safety has been delegated formally to specific individuals of appropriate seniority in order to effectively drive the implementation of the health and safety policy;

- There are effective arrangements for the university to consult with staff and the trade union-appointed safety representatives;
- Sufficient information is supplied to staff about the risks to which they may be exposed and the appropriate control measures they should adopt;
- Staff are properly trained to do their work and to discharge specific health and safety duties effectively;
- Sufficient resources, both in terms of time and finance, have been allocated.

While it is for individual institutions to decide how best to resource the system financially, there is guidance available concerning the duties of the individuals who have responsibility for operating the system.

The university must set up a clearly defined chain of responsibility for health and safety in all areas within its control, consistent with its other management arrangements. This must ensure that individuals are aware of their responsibilities for the health and safety of themselves and others. Detailed negotiations will be required in areas of joint responsibility, e.g. medical schools in hospitals and externally funded research institutes. Moreover, this clearly defined chain must exist not just within a department, but also between Heads of Departments and the senior management of the university.

The university's most senior managers should be empowered and required to include a discussion on health and safety as part of their regular meetings. Their remit should be to advise the Vice-Chancellor/Principal and the university's governing body on health and safety matters of importance generally and, in particular, to:

- Review and evaluate existing health and safety management arrangements, the associated health and safety policies and, in the process, critically assess their effectiveness;
- Direct and monitor the implementation of health and safety policy through the university's Health and Safety Office, Occupational Health Service, Health and Safety Committee(s) and any other reporting systems they have created;
- Determine the allocation of resources to ensure that the policy and plans can be properly delivered and sustained.

### ***2.3.1 The governing body***

As an employer, the university's governing body bears the primary responsibility for ensuring health and safety at work of staff, students and visitors. It is for them to institute the necessary management framework, not only to meet the demands of research and teaching, but also achieving the university's mission safely. Thus, the governing body must be seen to take the lead in all matters relating to health and safety. It must make clear, through its policy statements and by personal example, that everyone has their part to play, and that managers in particular are both responsible and accountable for health and safety performance within their own area of activity. To fulfil its obligations, the governing body must ensure the following actions are taken:

- Appoint a senior manager to be responsible for overseeing health and safety management;

A thorough health and safety audit should check explicitly that:

- The technical and managerial procedures in place are appropriate to the risk(s);
- Adequate and effective risk control mechanisms exist;
- Management is successful in setting and meeting performance standards;
- Overall, progress is being made.

In practice there are several types of audit that can be used to assess different aspects of the university's health and safety performance:

- The **health and safety management audit** looks for the existence of the various elements of the health and safety management system and assesses its overall effectiveness;
- The **compliance audit** tests whether specific laws or standards are being complied with;
- The **health and safety excellence audit** compares local practices and arrangements with an ideal model, benchmark comparator, or accepted best practice.

It is for senior management in each university to judge for themselves the relevance of each type of audit to its own circumstances, and the scope and structure of the audit programme. Many will find that a combination of these activities will provide confidence in many aspects of the design and implementation of the health and safety management system. The audit programme should be designed to permit a valid opinion to be formed of the following features of the health and safety management system:

- The scope and adequacy of the health and safety policy and supporting documentation;
- The acceptance of responsibility for health and safety by management at various levels;
- The effectiveness of management control, quality and dissemination of health and safety communications, and the competence of personnel with health and safety critical tasks;
- The effectiveness of health and safety planning, development and implementation of risk control in various settings;
- The extent of compliance with legal or other relevant performance standards;
- The adequacy, relevance and design of performance measuring systems;
- The ability of the university to learn from experience and improve performance, develop the health and safety management system and respond to change.

plans and procedures based on current best practice, derived from either legislation or from self-imposed standards. *Reactive* performance measurement systems seek to find out why something has gone wrong, either in terms of accidents, ill-health or similar losses. In both cases, the outcome of the process should be clear instructions or guidance to promote improvement in future performance.

To assure the success of such a complex scheme, each level of management should be able to reassure itself about the effectiveness of staff. This may be achieved through the process described below:

- The smallest departmental units (e.g. the individual laboratory or workshop) self-examine on a regular basis. The Head of Department will usually place this responsibility on the laboratory supervisor, senior researcher or chief technician;
- Departmental health and safety staff check the quality of these inspections;
- The departmental safety representatives carry out their independent statutory checks and issue reports to the Head of Department for action and to the university's Health and Safety Committee;
- Each department's success is assessed centrally by the CSP and/or OHP as part of their monitoring and auditing programme;
- The governing body examines audit and monitoring data (or a summary thereof) to reassure itself that overall the health and safety management system is functioning as it should.

In this way, each level of management examines its own activities for health and safety, checks the levels below, and is itself checked by one above. To complete this cycle and to ensure objectivity, the overall health and safety management system should be examined on, say, a five-yearly basis by an external auditor.

#### **2.4.3 Monitoring effectiveness and auditing the system**

Each university department should examine its own health and safety status periodically and correct deficiencies. However, the governing body requires reassurance of this, and also that at least all the legal obligations are met. It is therefore important that each management level monitors the effectiveness of the health and safety management function at the levels below it. Monitoring of subsidiary management levels should permeate the entire system so that the university's governing body is aware that minor problems are being dealt with *in situ*, and that substantial issues can be addressed and resourced at the appropriate level.

A health and safety audit is a systematic examination to determine whether activities and related results conform to planned arrangements, whether these arrangements are implemented effectively, and are suitable for achieving the organisation's policy and objectives. A health and safety audit system provides a framework for the examination of managerial and operational procedures and practices. It thus provides verification of, and a degree of reassurance about, the overall adequacy of protective plans and actions. Auditing supports health and safety management at all levels because it is an independent measure of health and safety performance.

- Identify the duties of Heads of Departments and the remit of the consultative Health and Safety Committee(s) of the university;
- Maintain a clear structure of accountability on health and safety performance at all levels;
- Ensure that every employee is competent for their health and safety duties and is adequately resourced for these duties;
- Formulate and/or endorse institutional health and safety plans, with priorities identified through risk assessment;
- Require that health and safety performance is satisfactorily monitored at all levels;
- Integrate health and safety into all institutional management activities;
- Demand and expect that openness, transparency and fairness are incorporated in all health and safety management activities;
- Ensure that health and safety performance is duly recognised and rewarded;
- Visibly support the values and vision of the health and safety programme by personal example in their own areas of responsibility;
- Encourage the appointment of safety representatives.

The governing body that can truly demonstrate that these tenets are followed will lead the way in health and safety management.

#### **2.3.2 Senior executive officers**

##### *2.3.2.1 Senior manager for the oversight of health and safety management*

It is not expected that all members of the governing body will take part in day-to-day health and safety management activities. But in the same way that senior managers of the governing body are appointed to oversee the management of the university's research or estate, the governing body should appoint a senior manager to oversee the adequacy and effectiveness of health and safety management. If health and safety is going to be successfully managed, it must be made obvious that it is important enough for a senior manager to spend time on it. Without this appointment, much of the requirement for managerial control devolves to the university health and safety staff and/or occupational health staff. In some universities, however, these specialist staff may not be sufficiently senior or resourced to *enforce* legally mandated activities. This senior manager must be the *champion* for health and safety management throughout the university. They must lead by example and embody the commitment of the governing body to health and safety.

##### *2.3.2.2 The Health and Safety Committee*

**It is a statutory requirement that a consultative Health and Safety Committee should be constituted by the governing body of the university, and should include members having the requisite expertise that represents the various fields of university activity, and reflects the interests of all sections of the university from both the employee and student viewpoints.** It is also a requirement that safety representatives nominated by the recognised trade unions should be invited to join the

Committee. The Committee should report regularly and send forward its recommendations to the governing body of the university.

If genetic modification (GM) work is undertaken at the university then there is a further legal requirement to set up a GM Committee whose membership is dictated by the relevant statutory provisions.

Statutory regulations may also require the setting up of a Biological Standards Committee and an Ethical Review Committee which need a health and safety input or access to health and safety advice.

The setting up of specialist sub-committees to deal with such matters as radiation protection, fire precautions, electrical and chemical safety, should also be considered.

Other important considerations for this part of the health and safety policy include how instruction, information and guidance on health and safety will be disseminated and how competence is to be assured.

### 2.3.3 Competent persons

Universities are required to have access to a competent person or persons to advise them on how to comply with health and safety legislation. This code of best practice uses the term central safety personnel (CSP) and occupational health personnel (OHP) to encompass this function. Apart from in the smallest universities, the CSP and OHP are unlikely to be a single individual. Larger universities find that a division of the task into areas of competency, both managerially and technically based, is the most appropriate. Thus, the 'competent person' might encompass several people with qualifications and experience in the management of health and safety, as well as the risks arising from work with chemical, biological, electrical/mechanical, fire, radiation hazards, the early detection of occupational disease and the management of affected individuals, in both clinical and employment sense.

#### 2.3.3.1 CSP and OHP

Universities are subject to an extensive range of legislative requirements governing all aspects of work with ionising radiation. In particular, the university's radiation protection adviser (RPA) should be a suitably qualified, registered and experienced person who is able, and available, to give advice on and generally oversee, all health and safety matters relating to work with radioactive substances and radiation generators. In some universities the RPA may be contracted from outside the institution. In such circumstances a university will need to consider who will undertake the executive duties associated with work involving radioactive substances.

Universities are also subject to certain statutory requirements relating to work with other hazardous substances; for example, universities where microbiological work takes place should consider appointing health and safety staff who have particular expertise and are competent in the field of biological and microbiological safety.

There are a number of legal provisions where there is a requirement for pre-employment screening and health surveillance, e.g. the Control of Substances Hazardous to Health (COSHH). Universities should make adequate provision for an Occupational Health Service to fulfil these requirements. Universities also

- Improving focus on reducing significant risks;
- Improving insurance liabilities for residual risks;
- Convincing stakeholders of the commitment of senior management;
- Supporting management systems;
- Ensuring that all individuals are complying with legislation and policy.

For all these reasons, the university must know how well its health and safety management system is functioning. To achieve this, a performance measurement system must be devised which can capture, record and analyse the necessary qualitative and quantitative data so that the proper corrective action can be taken. To ensure its adoption and implementation at all management levels, the measurement process must be designed to support, and indeed be indistinguishable from, the management of the university's other business processes. **Health and safety performance measurement must therefore be a planned, reactive and iterative process, closely allied to the university's financial, personnel and, in the broadest sense, quality-based activities.** If the process of measuring health and safety performance is tackled in a logical manner, then it can reveal much of use to university planners and managers generally. This is especially true if senior management in departments take the lead.

#### 2.4.2.1 Performance standards

A good performance standard should identify who is involved, when they ought to act, what precisely they are required to do, and what outcome(s) could be expected. In many ways, the simplest iteration of this cycle – the departmental inspection programme – is a mechanism for seeing if people in the department are doing what they have to do to keep themselves and others safe. This may mean nothing more than making sure that the inexperienced do not enter where they should not, or touch things that must remain undisturbed.

At the other extreme, some staff, e.g. the Head of Department, PI and departmental staff, might have complex duties which mean that at certain times of the month or year they have to perform specific duties to ensure that health and safety is assured for the next period. For health and safety critical issues, performance standards will have to be written down as part of the risk assessment process, validated, checked and reviewed to ensure that they remain relevant and effective, and that people really do behave as they are required to. Clearly, not every workplace will need to have such stringent rules. However, risk assessments conducted by some institutions may indicate that work involves the use of, say, highly toxic, carcinogenic or infectious substances. This work demands a structured approach to performance standard setting. For these institutions, best practice has shown that it is only by the implementation of such a regime that continued health and safety (and probably legal compliance) can be assured in the long term.

The university should know how well it complies with legislation, meets the requirements of other stakeholders, and compares with its peers. It also needs to know and understand why undesired events have in fact already occurred. This can be achieved by developing a system of both active and reactive monitoring. *Active* performance measurement systems examine against pre-determined

structure duties are delegated to those who have the practical knowledge to produce the assessments, and the authority to implement improvements. Moreover, **by following this scheme the university's health and safety management system should be able to cope with any developments in legislation, across a very broad spectrum of activities.** However, it does depend on everyone playing their part. Here again, much will depend on how committed Heads of Departments are, and how well they are supported.

#### 2.4.2 Emergency planning

Emergency planning is a special aspect of health and safety planning; it contains elements of risk assessment and accident investigation too. This is a large topic in its own right, but the principles are straightforward enough. The law does not expect the employer to be able to foresee and minimise every possible eventuality; the university's insurers may take a more stringent view.

Emergency preparedness and planning falls into three phases:

1. Before the emergency has occurred – emergency preparedness and planning should rely on the risk assessment process which will identify realistic potential emergency scenarios. These scenarios can be formulated to produce suitable training programmes to underline the relevant performance standards in each case. At this stage liaison must be established with the relevant emergency services, specialist health and safety advisers and, if necessary, the local community;
2. During the emergency – once an emergency has been declared, communication is vital. Senior management must strive to gain control, as advised by the emergency services in attendance;
3. During the aftermath – after the crisis is under control, good communications will again determine the rate at which normal operations can be re-established. It is at this stage that the CSP and/or OHP should commence the investigation to establish a likely cause, and to recommend any changes to prevent recurrence.

#### 2.4.2 Safety performance measurement

If left alone, any management activity, any rule or procedure will tend to deteriorate over time. It is important, therefore, that risks which have to be closely controlled should be re-examined periodically. Legislation requires as much, telling employers to arrange, *inter alia*, for the 'effective... monitoring and review of the preventive and protective measures'. These arrangements have to be recorded.

Health and safety performance measurement has several aims:

- Ensuring that the aims and objectives of the institutional health and safety policy are met;
- Ensuring that sufficient resources are allocated to the health and safety programme;
- Uncovering risks not hitherto appreciated;
- Gaining a fuller picture of the university's potential for loss;

require occupational health input to various employment functions which are not discussed in this guidance document; for example, ensuring compliance with the Disability Discrimination and Access to Medical Records legislation, or the management of sickness absence and ill health retirement. The service should work closely with the CSP, the university personnel function and any other relevant central services, such as staff development, disability services, counselling, welfare, student health and primary care.

The CSP and OHP should therefore be suitably qualified, with a wide range of experience, and should be able to offer independent and objective advice, which will be respected by all staff and students. Governing bodies are responsible for ensuring that those they appoint are competent in their relevant disciplines.

**The CSP and OHP are not legally responsible for ensuring that the university complies with health and safety legislation; this is the responsibility of the governing body.** However, traditionally they are the architects of the health and safety management system for the university. The CSP and OHP should be kept aware of developments within the university that might affect health and safety. In order to embed health and safety at an early stage of any project, they should work closely with those university employees who are developing the corporate strategy.

It is essential that the CSP and OHP remain independent of individual departments and the central administration, even if the CSP and OHP have some responsibility to a member of the university administration for 'administrative purposes', e.g. to permit the payment of salary. The reporting chain for the CSP and OHP should be defined in the university's health and safety policy; for example they may report directly to the governing body, via the Chair of the Health and Safety Committee, or to the Principal or Vice-Chancellor.

#### 2.4 Health and safety planning

The aim of health and safety planning is to identify how best to deploy resources to control risk. In the constantly changing university environment, this is a significant challenge that will require commitment and contributions from all levels of management. The planning process should include: identifying objectives that support this aim; and setting targets that signal their achievement.

The purpose of planning is to foster a culture that eliminates and controls risks. This is best achieved by the development of performance standards that are indicative of improvement and the achievement of the aims of the health and safety policy.

The simplest health and safety planning is a form of 'gap analysis'. By ascertaining where the university is at present, and setting goals for health and safety performance, the university can develop a strategy to attain its objectives. These objectives may include the following, but each could be further divided to reveal detailed milestones, which themselves are indicative of progress:

- Development of the health and safety policy;
- Developing the health and safety organisation and fostering the health and safety culture;
- Developing performance standards and risk control systems.

A university that has an established health and safety management system may

want to concentrate on the second two, but all three classes of objective should be subject to regular review.

Devising workplace precautions is part and parcel of both the planning process and a primary outcome of risk assessment. All require the systematic identification of workplace hazards, their analysis and evaluation via risk assessment, and this in turn leads to methods of risk control. The precautions necessary in a particular situation, and indeed the appropriate standard, will vary from place to place. Some are appropriate for the entire university; others for a single laboratory or workshop.

The methodology for reaching valid decisions about these issues is described in Section 2.4.1 on risk assessment.

Once the scale and scope of this work is known, resources can be identified and timetables set. These can be translated into specific objectives. Once this stage has been reached it is important to set relevant performance standards. Applied properly, these ensure that the right people do the right thing at the right time, and that the outcome is either positive or remedial action takes place.

Accurate performance standards set the parameters for management action. They also foster the health and safety culture in four key areas:

- Management control of risks;
- Co-operation across all employee sectors;
- Communication in terms of cascading health and safety information and employee feedback;
- Developing competence at all management levels.

Performance standards are a necessary part of planning, especially at a strategic level, because they identify the key players, and ensure that any milestones are reached on time. On an on-going basis at the departmental level, performance standards can ensure that health and safety critical duties are performed rigorously. In either case, performance standards ought to have the following characteristics:

- Who is responsible? This should be a named person, or at least a job title;
- Specifically what the job entails (and how it is to be performed);
- When or at what frequency must this job be done;
- What outputs can reasonably be expected, and what would follow in each case;
- To whom must reports of the job (and its outcome) be sent.

Planning in health and safety is a continual process. It can be cascaded from an institutional level to departmental and down to the individual laboratory or workshop level. Indeed, the demands of legislation relating to activities such as manual handling, or visual display units mean that even at first line supervisory level, planning is a essential.

**Each management level should set performance standards and targets for those below. Each level passes information about success and feedback to the one above. In this way, the governing body can be assured that the overall planning process is embedded into everyday management activities.**

### 2.4.1 Risk assessment

Current legislation makes explicit what employers are required to do to manage health and safety at work and to carry out risk assessments. There are a significant number of regulations that require a risk assessment in some form. Some are quite specialised but the principles are much the same in all cases, differing mainly in the detail.

Risk assessment is about matching the risk to adequate protection. It is about complying with legislation in such a way that the real dangers of work are controlled. It does not need to be, indeed must not be simply a bureaucratic exercise, to be done once and forgotten. This is especially true in universities where research and teaching are assumed to be dynamic processes. Here, risk assessment has to display these features too. Therefore, it is expected that risk assessment will be a developing and fixed element of management activities throughout the institution.

The architecture of a university risk assessment process is typically as follows:

- New legislation demanding risk assessment is analysed for impact and scope by the CSP and/or OHP;
- A generic risk assessment is written. The object of this is to:
  - Inform the university community of the existence of the matter as a health and safety issue;
  - Alert those departments of the university who might be directly affected by the new requirements of the nature of the hazard;
  - Instruct those departments of the way in which university health and safety policy interprets it, and the action which might be required to control or eliminate the risk;
- Departmental staff will apply the guidance contained in the generic risk assessment in their own area of responsibility, and develop a risk assessment *specific* to their work. Any improvements or remedial action is planned and implemented, and any concomitant alterations made to their departmental health and safety policy;
- The new departmental risk assessment(s) are incorporated into local self-inspection programmes, so that over time the effectiveness – the quality – of the risk assessment can be established;
- The CSP and/or OHP, based on the requirements of the legislation, develop a compliance audit programme. This is used by them to check that:
  - Departmental risk assessments have been carried out and are effectively implemented;
  - The departmental self-inspection programme is satisfactory;
  - Overall, the requirements of the law are being implemented at both corporate and local level effectively;
- Depending on the individual requirements, a periodic review is undertaken both at corporate and departmental levels.

This process is designed so that the university's governing body can be assured that it is complying with legislation. Throughout the university's management