Health and Safety Office

Risk assessment code of practice

Document control information

Published document name:	Risk assessment code of practice
Date issued:	01 May 2011
Version:	2.0
Previous review dates:	n/a
Next Review Date:	2014 or following significant change in information
Related documents:	Risk assessment template as appendix Fire Safety Policy and associated guidance notes
Governing policy:	n/a
Guidance to policy:	Contained within this document
Legislation / Related information:	Management of Health and Safety at Work Regulations 1999 Five steps to Risk Assessment (INDG 163 rev 2) Regulatory Reform (Fire Safety Order) 2005 Regulation specific University guidance notes
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1. Scope

The University of Bristol is committed to the provision of a healthy and safe working that inspires and supports academic achievement. The University is a large and complex organisation conducting a wide range of activities over a number of sites. This policy sets out how the University of Bristol will identify and manage risks, on and off site that may affect the health and safety of members of staff, students and others that may be affected by our activities.

2. Introduction

The Management of Health and Safety at Work Regulations 1999 imposes a duty on employers to carry out suitable and sufficient assessments of all the significant risks to employees and those who may be affected arising out of or in connection with any work activity. The purpose of the risk assessment is to enable the University to determine what measures should be taken to comply with the duties under the relevant statutory provisions. This covers the general duties under the Health and Safety at Work etc Act 1974 and the more specific duties contained within subordinate Regulations. More specific requirement for risk assessment can be

found in other legislation including the Control of Substances Hazardous to Health Regulations 2002, the Regulatory Reform (Fire Safety) Order 2005 and the Manual Handling Operations Regulations 1992 (as amended 2002).

3. Definitions

- A **risk assessment** is a careful examination of what, in your work, could cause harm to people, so that you can weigh up whether you have taken enough precautions or should do more to prevent harm.

- A **hazard** is anything that may cause harm, such as chemicals, electricity, working from ladders, an open drawer etc.

- **Risk** is the chance, high or low, that someone could be harmed by these and other hazards, together with an indication of how serious the harm could be.

- A **dynamic risk assessment** is an assessment that takes into account unexpected or short temporary changes that require immediate amendments to be made to risk assessment control measures. Examples would include changes in weather conditions or breakdown of heating systems.

- A **suitable and sufficient risk assessment** is an assessment that is proportionate to the risk and ensures that all relevant hazards are addressed, complies with statutory requirements, ensures all groups who are affected are considered and takes account of existing control measures and identifies further measures as necessary.

- A **generic risk assessment** is an individual assessment covering the common significant hazards that staff and others who may be affected by University activities face on a day to day basis; these may include low risk activities such as general office activities or repeated activities that can be documented in another way such as safe systems of work or for example local laboratory rules.

4. Risk assessments in practice

There are no fixed rules about how a risk assessment should be carried out; it will depend on the nature of the work or business and the types of hazards and risks. This guidance sets out the general principles that should be followed and follows the Health and Safety Executive guidance Five Steps to Risk Assessment (INDG 163 rev 2). The risk assessment process needs to be practical and take account of the views of staff and any Trade Union Safety representatives who will have practical knowledge to contribute.

Heads of School are responsible for ensuring that arrangements for risk assessments are adequate for the School/Department and are communicated effectively.

Managers/supervisors must ensure that all activities are formally identified and appropriate risk assessments undertaken by a competent person, which identify hazards, decide who might be harmed and how and then evaluate the risks and decide on what control measures are necessary to minimise those risks, as far as reasonably practicable. Also that risk assessments are recorded and any significant hazards are communicated to relevant persons including the arrangements in place for controlling those risks.

Where employees of different schools/departments work in the same workplace, their respective schools/departments or organisations may have to co-operate to produce an overall risk assessment e.g. communal service such as welding facilities or where University staff work on other premises such as those belonging to University Hospitals Bristol Trust.

In some cases schools/departments may make a first rough assessment, to eliminate from consideration those risks on which no further action is needed. This will show where a fuller assessment is needed, if appropriate, using more detailed techniques. The University has a number of similar workplaces containing similar activities and therefore a model or generic risk assessment may be used which reflects the core hazards and risks associated with these activities. Trade associations, employers' bodies or other organisations concerned with a particular activity, may also develop model assessments. Such 'model' assessments may be applied by schools/departments or managers at each workplace, but only if they: satisfy themselves that the 'model' assessment is appropriate to their type of work; and adapt the 'model' to the detail of their own actual work situations, including any extension necessary to cover hazards and risks not referred to in the 'model'.

4.1 Principles of risk prevention

In deciding which preventative and protective measures to take, schools/departments should apply the following principals of prevention:

- If possible avoid a risk altogether, e.g. do the work in a different way, taking care not to introduce new hazards;
- Evaluate risks that cannot be avoided by carrying out a risk assessment;
- Combat risks at source. So, for example if the steps are slippery, treating or replacing them is better than displaying a warning sign;
- Adapt work to the requirements of the individual (consulting those who will be affected when designing workplaces, selecting work and personal protective equipment, drawing up safe working procedures and methods of production). Aim to alleviate monotonous work and increase the control individuals have over work they are responsible for;

- Take advantage of technological and technical progress, which often offers opportunities for improving working methods and making them safer;
- Implement risk prevention measures to form part of a coherent policy and approach. This will progressively reduce those risks that cannot be prevented or avoided altogether, and will take account of the way work is organised, the working conditions, the environment and any relevant social factors. Details should be contained within the school/departments Health and Safety policy or local rules;
- Give priority to those measures that protect the whole workplace and everyone who works there, and so give the greatest benefit (i.e. give collective protective measures priority over individual measures);
- Ensure that staff, whether employees or self-employed and students understand what they must do. Staff and students must have read and understood any relevant risk assessments and be aware of the control measures that are in place for any work that they undertake and work in accordance with any safe systems of work. Cooperating with their line manager/supervisors with regard to complying with any control measures that are in place, following any instructions provides and undertaking any necessary training;
- A positive health and safety culture must exist within the school/department. This means the avoidance, prevention and reduction of risks at work must be accepted as part of the school/department's approach and attitude to all its activities. It must be recognised at all levels of the organisation.

These are general principals rather than individual prescriptive requirements. They must, however, be applied wherever it is reasonable to do so. Experience suggests that, in the majority of cases, adopting good practice will be enough to ensure risks are reduced sufficiently. Authoritative sources of good practice are prescriptive legislation, Approved Codes of Practice and guidance produced by Government and the University Health and Safety Office. Other sources include standards produced by standard-making organisations and guidance agreed by a body representing an industrial or occupational sector, provided that the guidance has gained general acceptance. Where established industry practices result in high levels of health and safety, risk assessments should not be used to justify reducing current control measures.

4.2 Guide to undertaking a risk assessment

An assessment of risk is nothing more than a careful examination of what, in your work, could cause harm to people so that you can assess whether you have taken enough precautions or should do more to prevent harm. The aim is to make sure no one gets hurt or becomes ill through the activities at work. Accidents and ill health can ruin lives and affect your school/department in regard to damaged equipment, loss of staff, insurance cost increases, or criminal prosecutions under the Health and Safety at Work etc Act 1974.

The important things you need to decide are whether a hazard is significant, and whether you have it covered by satisfactory precautions or controls so that the risk is small. You need to check this when you assess the risks. For instance, electricity can kill but the risk of it doing so in an office environment is remote, provided that electrical equipment is suitable for the task, bought from a reputable supplier and is maintained.

4.2.1 How to assess the risks in the workplace

In most schools/departments the hazards are easy to recognise. Checking them is common sense, but necessary. You may have already assessed some of them, for example, the use of toxic or dangerous chemicals should already have an assessment under the Control of Substances Hazardous to Health Regulations (COSHH). If so, you can consider them 'checked' as there is no difference in a risk assessment completed under COSHH than other general risk assessments apart from COSHH assessments are looking at controlling the specific risks from work activities with hazardous substances such as chemicals and biological material. For other hazards, you probably already know whether you have machinery that could cause harm, or if there is an awkward entrance or stair where someone could be hurt. If so check that you have taken such reasonable precautions that injury can be avoided.

Step 1 – Look for the hazard

Walk around your area of responsibility and look afresh at what could reasonably be expected to cause harm. Ignore the trivial and concentrate only on significant hazards that could result in serious harm or affect several people. Ask the staff and any Trade Union Safety Representative what they think. They may have noticed things that are not immediately obvious. Manufacturers' instructions or data sheets can also help spot hazards and put risks in their true perspective. So can accidents and ill health records.

Look only for hazards that could reasonably expect to result in significant harm under the conditions in your workplace. Use the following examples as a guide:

- Slipping/tripping hazards (e.g. poorly maintained floors or stairs).
- Fire (e.g. from flammable materials).
- Chemicals (laboratories etc) and how they are used and in what quantities.
- Moving parts of machinery (Faculty workshops).
- Work at height (scaffolding around experiments etc.).
- Ejection of material (workshops, experiments etc.).
- Pressure systems (laboratories etc.).
- Vehicles (e.g. fork lift trucks, minibuses).
- Electricity (e.g. poor wiring, portable appliances, electrical experiments).

- Dust (e.g. metal grinding, cement etc.).
- Fume (e.g. welding, chemicals etc.).
- Manual handling.
- Noise (noisy machinery or process).
- Poor lighting, low temperature etc.
- Biological hazards (lab work, gardening, contact with body fluids etc.).

Step 2 – Decide who might be harmed, and how

In addition to staff, think about people who may not be in the workplace all the time e.g. cleaners, visitors, contractors, maintenance personnel, etc. Include students, members of the public, or people that share your workplace, if there is a chance they could be hurt by your activities.

There is no need to list individuals by name – just think about groups of people doing similar work or who may be affected, e.g.:

- Office staff
- Operators
- Maintenance personnel
- Cleaners
- Contractors
- Members of the public

Pay particular attention to the following as they may be more vulnerable:

- Staff and students with disabilities
- Inexperienced staff
- Visitors
- Lone workers
- Pregnant workers
- Young people on work experience

Staff have a responsibility to report to their line manager any personal circumstances that would change the risk assessment for example any temporary or permanent disability or health condition that would mean that they are at greater risk.

Step 3 – Evaluate the risks arising from the hazards and decide whether existing precautions are adequate or more should be done.

Even after all precautions have been taken, usually some risk remains. Decide for each significant hazard is whether this residual risk is high, medium or low. First, ask whether you have done all the things that the law says you have got to do. For example, there are legal requirements relating to fire safety, statutory inspection of plant and equipment, water systems to prevent legionella risks etc. Then, consider

whether generally accepted industry standards are in place. But don't stop there –the law states that employers must do what is reasonably practicable to keep the workplace safe. The real aim is to make all risks small by adding to precautionary control measures as necessary.

Introducing a hazard may affect other control measures that are in place for a work activity or in the building for example the fire safety precautions. Ensure that timely information is provided to the Building Fire Coordinator and/or the University Fire Safety Advisor where the findings of any risk assessment requires that the Fire Risk Assessment will need to be updated whether temporarily or on a permanent basis. Triggers for this will include a work activity being introduced into a building which is a fire risk and is not normally carried out in that building. For example if experiments with flammable substances are required to be made in areas where such work is not normally carried out such as offices. In such circumstances the occupier must ensure that the building fire risk assessment is reviewed. This would not apply if additional flammable work was being carried out in a laboratory based building where such work is already being undertaken elsewhere. Another trigger would be if the fire precautions had to be temporarily disabled to allow the work activity to proceed. Further advice is contained within the University Fire Safety Policy.

If you find that something needs to be done, ask yourself:

- Can I get rid of the hazard altogether?
- If not, how can I control the risks to ensure that harm is unlikely?

Only use personal protective equipment when there is nothing else that can be reasonably done.

If the work tends to vary a lot, or if staff move from one location to another, select those hazards which can be reasonably foreseen and assess the risks from them. After that, if you spot any unusual hazards when you get to a place get information from others on site and take what action seems necessary.

If you share a workplace, ensure that the risks your work could cause and what precautions you are taking is communicated to others including any other Heads of School, Faculty Manager and Departmental Safety Adviser. It is important that managers consider the risks to their staff from those who share the workplace.

Are existing precautions adequate against the risks from the hazards listed? For example, have you provided?

- Adequate information, instruction or training?
- Adequate systems or procedures?

Do the precautions:

- Meet the standards set by a legal requirement?

- Comply with the recognised industry standard?
- Represent good practice?
- Change existing precautions in place?

Reduce risks as far as is reasonably practicable (a balance between the risk and the cost of preventative measures in time, money and effort i.e. it would not be reasonably practicable to invest substantial amounts of money and time where the risk and injury level are very low but it would be reasonably practicable to introduce all measures possible where the risk is high and the possible results are death or major injury). Improving health and safety need not cost a lot. For instance, putting some non-slip material on slippery steps is an inexpensive precaution considering the risks.

If so then the risks are adequately controlled. But it is necessary to indicate the precautions in place. Refer to procedures, manuals, local departmental rules etc. giving this information.

Step 4 – Record your findings

This means (1) writing down the more significant hazards and (2) recording most important conclusions – for example, “Portable electrical equipment inspected and tested and found sound” or “Fume from welding: local exhaust ventilation provided and regularly checked”. Staff must be informed about the risk assessment findings. It is good practice to get staff to sign that they have read and understood the findings of relevant risk assessments.

There is no need to show how the assessment was carried out provided that:

- a proper check was made;
- the assessment details who might be affected;
- all the obvious significant hazards are considered, taking into account the number of people who could be involved; and
- the precautions are reasonable and the remaining risk is low.

Assessments need to be suitable and sufficient, not perfect. The real points are:

- are the precautions reasonable?; and
- is there something to show that a proper check was made?

Keep the written document for future reference or use. It can help if an inspector questions your precautions, during a University health and safety audit and particularly if you become involved in any action for civil liability. It can also remind individuals and managers that a particular hazard and control measures require effective monitoring. This guidance contains a risk assessment template that may be helpful.

Step 5 – Review your assessment and revise it if necessary.

Sooner or later the school/department will bring in new machines, substances and procedures that could lead to new hazards. If there is any significant change, produce an additional assessment to take account of the new hazard. It is good practice to review risk assessments from time to time, the Health and Safety Office recommend annually. Don't amend the assessment for every trivial change, or for each new job, but if a new job introduces significant new hazards of its own, you will want to consider them in their own right and do whatever you need to keep the risks as low as reasonably practicable. Staff are responsible for advising their line manager of any changes in activity which may affect the findings of the risk assessment. For example any activity that would require the fire risk assessment to be reviewed and updated.

Don't forget to initial and date the assessment when you it is reviewed and ensure that it is brought to the attention of all relevant members of staff and others who may be affected.

4.3 Training

Those tasked with carrying out risk assessment are required to be competent. The Health and Safety Office run risk assessment courses that are open to all members of staff and Postgraduate students. Details of course dates and times are outlined in the University Course diary available at;
http://staffdev.ilrt.bris.ac.uk/staffdevelopment/courses/directory/

4.4 Specific risk assessments

As well as the Management of Health and Safety at Work Regulations 1999, other regulations require assessments to be carried out. It should be noted that if, for example, a COSHH risk assessment has been carried out on a particular substance, and if that assessment is applicable to the risk assessment being carried out, it need not be repeated and vice-versa.

The following is a selection of Regulations that require a specific formal assessment.

- Control of Substances Hazardous to Health Regulations 2002
- Control of Noise at Work Regulations 2005
- Control of Vibration at Work 2005
- Manual Handling Operations Regulations 1992 (as amended 2002)
- Health and Safety (Display Screen Equipment) Regulations 1992 (as amended)
- Personal Protective Equipment at Work Regulations 1992
- Working at Height Regulations 2005
- Regulatory Reform (Fire Safety Order) 2005
- Genetically Modified Organisms (Contained Use) Regulations 2000

NB: This is not a complete list and current Regulations should be consulted. Occupational Safety and Health can advise as to whether an activity is covered by specific or general legislation.

Appendix 1

University of BRISTOL	**University of Bristol** **General risk assessment form**			
Date: (1)	**Assessed by:** (2)	**Checked by:** (3)	**Assessment ref no:** (4)	**Review date:** (5)

Description and location of hazard (6)	**Who might be harmed** (7)	**Existing control measures (8)**	A. **Likely severity of injury (1 to 3)** (9)	B. **Likely occurrence (1 to 3)** (10)	**Risk rating (A) x (B)** (11)	**Comments / Actions** (12)

Score	3	2	1
Column A: Severity of injury:	Major Injury or death	Injury requiring medical treatment	Minor or no injury
Column B: Likely occurrence:	Regular exposure of several employees to hazard.	Occasional exposure of few employees.	Exposure to hazard very rare.

Risk score	Response times	Risk score	Response times
9	Immediate cessation of activity until interim controls are agreed and implemented	**3&4**	Review on change of process or if circumstances change. Provide additional training, supervision and monitoring.
6	Critically examine the areas of exposure in the process and agree timetable for completion of all agreed actions	**<3**	12 months review (date of next audit). No real changes in procedure required to reduce risk further

Action plan (13)				
Ref no.	**Further action required**	**By whom**	**By when**	**Completed**

Notes on completing risk assessment form

The above form is used on the University risk assessment training courses run by Occupational Safety and Health. It is recommended that you use this form for general risk assessments: however, it is not compulsory that you do so.

(1) Insert date that the assessment is completed
(2) Insert name and signature of the competent person completing the form
(3) The assessment will normally be checked and signed by a line manager, supervisor, principal investigator etc.
(4) This section provides an area for any school/department local risk assessment reference number
(5) Insert the date when the risk assessment will be reviewed; it is recommended that this is annually or sooner if there are any significant changes or accidents/incidents.
(6) Add the description on the location and the hazard. Look for all the hazards: include those that are significant and less obvious ones. The number of rows on the assessment is unlimited, how many are used for one assessment will depend on how the work activity/event has been sub-divided.
(7) Insert everyone who might be harmed by the activity and especially those groups who may be specifically at risk. Include cleaners, security staff, students, members of the public etc.
(8) List all existing control measures that are currently in place. Start by considering whether the risk can be completely eliminated. List any control measures that are legal requirements then, consider whether generally accepted industry standards are in place. But don't stop there –the law states that employers must do what is reasonably practicable to keep the workplace safe. Include supervision arrangements, instruction and training.
(9), (10) and (11) The simple matrix arrangement can be used to provide an indication of risk rating. Select a score of 1, 2 or 3 for the severity of injury that the assessor believes the hazard could cause (see below) and add to column (9).
Next select the score for the likely occurrence for the hazard occurring. This is the score after the existing control measures have been applied; add to column (10).
Colum (11) is the sum of severity of injury (9) x likely occurrence (10) = (11)

Score	**3**	**2**	**1**
Column A: Severity of Injury:	Major Injury or death	Injury requiring medical treatment	Minor or no injury
Column B: Likely Occurrence:	Regular exposure of several employees to hazard.	Occasional exposure of few employees.	Exposure to hazard very rare.

This simple scoring system is not based on quantitative methods but is designed to give a simple estimate of risk quantitatively. The table below gives an indication of what action is necessary dependent on the number reached in (11). This is a guide only.

Risk Score	Response Times	Risk Score	Response Times
9	Immediate cessation of activity until interim controls are agreed and implemented	**3&4**	Review on change of process or if circumstances change. Provide additional training, supervision and monitoring.
6	Critically examine the areas of exposure in the process and agree timetable for completion of all agreed actions	**<3**	12 months review (date of next audit). No real changes in procedure required to reduce risk further

(12) Add any comments into this section, appropriate comments would include when PAT testing is scheduled to be completed or that currently the building is being refurbished or that further information is required.
(13) The risk assessment may identify that further action is required to ensure that all what is reasonably practicable has been done to keep the workplace safe. Use the action plan to record what needs to be done, who is responsible for completing the action and when it has been achieved.