

HAZARD AND RISK HOW TO

Definitions:

- Hazard = the potential for harm

For example: Climbing up a cliff the climber could fall and be killed. Clearly, the hazard is falling off the cliff to the ground.

- Risk = the likelihood of that harm occurring and the severity of its outcome. Using the same scenario: If the climber is climbing without proper safety equipment and is not properly belayed by a competent person, the likelihood of falling could be high. The severity of the outcome would depend on the height of the fall.

Falling from a low height may be painful, but a fall from the top of the cliff could be fatal, possibly even to others standing, spectating or climbing.

The extent of the risk should also take into account the number of others exposed to the harm. Is the climber the only one at risk or are there others climbing, waiting to climb or spectating?

Step 1. What are the Hazards?

A hazard is something with the potential to cause harm, injury, ill health or disease. All significant hazards that could affect the activity/ activities need to be recorded. Legally you can ignore the “trivial”.

Hazards can be grouped into families: Physical, chemical, biological and natural phenomena. There is an element of overlapping, but they can enable the quick and systematic process of hazard listing.

-Physical hazards include activity areas/sites/locations, include gravity, hot/cold temperatures, travel format/movement etc. and would involve manual handling, equipment, vehicles, electricity, noise, vibration, etc.

- Chemical hazards include fire, explosions, and contamination from substances at work.
- Biological hazards include animals, humans, plants and microorganisms.
- Natural phenomena include heat, light, water, weather reports, etc.

Step 2. Who is at Risk?

Any risk assessment must include the hazards to all persons who may be affected by the activity/ facility under consideration.

Step 3. Assessing the level of Risk?

Each Hazard identified in your Assessment will present a differing level of risk. We can determine the level of risk through the generation of a Risk Factor from an assessment of the Likelihood and Severity of Injuries arising from the Hazard.

Establish Likelihood rating based on the scale shown:

- 4 Very Likely If it continues as it is, there is almost a 100% certainty that an accident will happen e.g. from broken stairs, exposed electrical wires, Unsupervised use of trampolines, etc.)
- 3 Likely The effects of vibration, wind or human carelessness could precipitate an accident, but which is unlikely to happen without this additional factor (e.g. climbing ropes not belayed, puddle of water on gym floor, electrical cable in walkway, etc.
- 2 Possible The incident may happen if other additional factors were present, but it is unlikely to occur without them. The probability is low and the risk is minimal e.g. worn steps, obstructing an aisle, storage of heavy items above head height, etc.
- 1 Not Likely There is no Likelihood of an accident occurring. Only under freak conditions could there be a possibility of an accident or illness. All reasonable precautions have been taken so far as is reasonably practicable. This should be the normal state of the workplace.

Establish a Severity rating for the identified hazards using the following scale:

- 5 Very High Causing multiple deaths and/or widespread destruction.
- 4 High Causing death or serious injury to an individual. Serious injury includes fractures, amputations and hospitalisation for more than 24 hours.
- 3 Moderate Causing injury or disease that incapacitate an Individual for more than one day.
- 2 Slight Causing minor injury that would allow the Individual to continue after first aid treatment.
- 1 Nil No risk of injury or disease. 19

Calculating the Risk:

From these you can compile the Risk Factor by multiplying the Likelihood rating by the Severity rating. Such a rating enables the most serious risks to be considered first, i.e. the higher the number the higher the risk.

For example a Severity rating of High (4) and a Likelihood rating of Likely (3) gives you a Risk Factor of 12 = HIGH RISK.

By following these simple guidelines you can give each Hazard you identify in your Assessment a Risk Factor. It will also enable you to prioritise the Hazards in terms of implementing precautions to control/ minimise/ eliminate the risk they present.

Step 4. Current precautions to control Risk/ Implementation of controls to minimise Risk?

By taking safety precautions you are aiming to either eliminate the risk or reduce it to an acceptable (LOW) level. Controls need to be "suitable and sufficient" but are qualified by only needing to be "reasonably practicable" bearing in mind the risk level, number & characteristics of people affected, your experience and the resources to implement any precautions.

Commonly there may be more than one option for control and so a decision must be taken on grounds of effectiveness and cost.

Such controls might include:

- Safe systems of operation to reduce risk to an acceptable level with written procedures that are known and followed (Checklist/ instructions/manuals).
- Elimination -removing the hazard e.g. for summer climbers, maybe no winter climbing trips in Scotland.
- Supply of personal protective equipment (helmets, life jackets, etc.).
- Proper training (COSHH, manual handling, etc.).
- Adequate supervision (competent referees/ instructors).
- Information & instruction (demonstrations and leaflets).
- Substitution with something less hazardous e.g. (use of pools not rivers; climbing walls not outcrops, etc.).
- Enclosure, guarding or segregation (Netting to stop balls going on the road, etc.).

No hierarchy is intended and often the controls will be used in combination so as to ensure the risk is reduced to an acceptable level. It should be remembered that such controls are only as good as the standard of supervision implementing and monitoring their effectiveness.

Step 5. Recording of significant aspects of the Assessment and regular Monitoring & Review.

To be effective risk assessments need to be recorded. Taking activities one at a time, the recorded assessment should be clearly laid out and detail the date, the activity and who has carried out the assessment. It should include the significant facts, e.g. the hazards and risks identified, those who are at risk, the factor/ level of risk to those identified as at risk, relevant controls, action required and review dates etc. By having records it will be easy to refer to the risk assessment when it is time to review it, or when it needs to be examined by HSE or internal inspectors or 'others', in the light of an accident or near miss occurrence. Also, it is an important record that can be given to other performers and 'Managers' to enable them to undertake the activity safely. The actual risk assessments are only the start of the process. Once the control measures have been implemented, there must be a programme of checking. This can take the form of inspections & audits, reports to committees or safety meetings, accident and ill health record monitoring, etc. There must also be a regular check as to whether anything significant has occurred which would change the risk assessment.

This information is based on guidelines for Risk Assessments as set out by the HSE in their '5 steps to Risk Assessment'.

Risk Assessment Forms are available from Sport Brighton or site receptions.