

# Application of Risk Assessment to Operational Activities

## SIMPLE RISK LEVEL ESTIMATOR

HAZARD!!		How Severe?		
		Slightly Harmful	Harmful	Extremely Harmful
How Likely?	Highly Unlikely	Trivial Risk	Tolerable Risk	Moderate Risk
	Unlikely	Tolerable Risk	Moderate Risk	Substantial Risk
	Likely	Moderate Risk	Substantial Risk	Intolerable Risk

## SIMPLE RISK BASED CONTROL PLAN

Risk Level	Action and Timescale
Trivial	No action required and no documentary record needs to be kept.
Tolerable*	No additional Controls are required. Consideration may be given to a more cost effective solution or improvement that imposes no additional cost burden. Monitoring is required to ensure that the controls are maintained.
Moderate	Efforts should be made to reduce the risk, but the costs of prevention should be carefully measured and limited. Risk reduction measures should be implemented within a defined time period.  Where the moderate risk is associated with extremely harmful consequences, further assessment may be necessary to establish more precisely the likelihood of harm as a basis for determining improved control measures.
Substantial	Work should not be started until the risk has been reduced. Considerable resources may have to be allocated to reduce the risk. Where the risk involves work in progress, urgent action should be taken.
Intolerable	Work should not be <i>started or continued</i> until the risk has been reduced. If it is not possible to reduce the risk even with unlimited resources, work has to remain prohibited.

\* Tolerable assumes that the risk has been reduced to the lowest level that is reasonably practicable.

British Standard 8800 1996, Guide to Occupational health and Safety Management Systems, p 24 – 27 (Aligned with ISO 9000)

October 4, 2000

## SEVERITY OF HARM

When seeking to establish the severity of harm the nature of potential harm should be considered, eg.

**Slightly Harmful** - superficial injuries; minor cuts and bruises; eye irritation from dust; nuisance and irritation such as headaches; ill health leading to temporary discomfort. *Such injuries are unlikely to result in absence from work.*

**Harmful** - Lacerations; burns; concussion; serious sprains; minor fractures; deafness; dermatitis asthma; upper limb disorders; ill health leading to minor permanent disability. *Such injuries may be likely to result in absence from work..*

**Extremely Harmful** - amputations; major fractures; poisoning; multiple injuries; fatal injuries; occupational cancer; life shortening diseases; acute fatal diseases. *Such injuries are likely to result in absence from work for extended periods or ill health retirement. They will be RIDDOR reportable.*

## LIKELIHOOD OF HARM

In seeking to establish the likelihood of harm the adequacy of existing control measures, legal requirements and codes of practice must be considered and the following aspects taken into account;

- The number of persons exposed
- The frequency and duration of exposure to the hazard
- Failure of the equipment
- The effect of the work environment and environmental conditions
- Standard provision of PPE (eg fire kit)
- unsafe acts, either intentional or unintentional.
- unplanned events

**Highly Unlikely** events should not be expected to occur during routine operations unless there are a significant number of contributing factors. (i.e. a number of things must need to go wrong at the same time)

**Unlikely** events should not occur during routine operations unless there are some contributing factors. (i.e something must go wrong for the event to occur)

**Likely** events may be expected to occur during routine operations equipment. (i.e. the event may occur even if nothing goes wrong)