

Risk assessments

A hazard is anything that can cause harm. Risk is the chance, high or low, that somebody will be harmed by the hazard. Carrying out a risk assessment therefore is a task you may need to do and therefore understand how to go about it.

The aim of the risk assessment is to reduce minor, major and fatal injuries.

1. Look for the hazards.
2. Decide who might be harmed and how.
3. Evaluate the risks and decide whether the existing precautions are adequate or whether more should be done.
4. Record your findings.
5. Review your assessment.

Evaluation and appraisal will identify tasks, operations and processes that may be safety critical. Once identified, these activities are assigned the status "significant risk". Initial standards regarding prevention and protection are formalised by a company health and safety planning team, and people are formally notified whose specialist knowledge will develop the assessment to eliminate or mitigate the risk(s) to workers, company employees and other visitor who may visit that area.

Developing the risk assessment will include reference to:

- health and safety information
- comment and recommendations from designers and specifiers
- previous experience in similar tasks, operations or processes
- experience of supervisors and workers
- legislative standards and controls
- authoritative sources of guidance
- incident data
- generic risk assessments
- insurance restrictions and limitations
- potential consequences of the "worst possible scenario"
- control measures and monitoring arrangements.

Risk assessments always address the following:

- Task description and location.
- Expected duration.
- Hazards identified.
- Population exposed.
- Risks arising.
- Control measures.

Significant risks include:

- commissioning / decommissioning of any energised apparatus
- work on any apparatus which is capable of being energised
- work on any suspect or damaged installation
- work on any apparatus or system within a confined area / plant room.

Formalised risk assessments should always be phrased and structured in a manner, which is understandable to supervisors and workers, and is subject to ongoing review. Each control / requirement should be explained to workers before any safety critical task, operation or process is started.

Example of a risk assessment guidance document

Working at heights			
Task	Hazard	Risk	Control
Using ladders as a means of access from one level to another.	Falling from the ladder. Displacement of the ladder. Failure of the ladder.	Major or lost time injury to head, legs, arms or internal organs.	Inspect the ladder for visible defects before use. Ensure the ladder is secured to the landing point and if necessary at the base. Use both hands when climbing up or coming down the ladder.
Working at or adjacent to a leading-edge	A person or persons falling from one level to another.	Fatal, major or lost-time injury. Fatal, major or lost-	Check the work location prior to commencement. Confirm the positioning,

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Task	Hazard	Risk	Control
	Materials falling from heights.	time injury due to being struck by falling material/s.	integrity and suitability of the barrier. If considered unsuitable, stop and have the assembly upgraded.
Working from bandstand scaffolds or hop-ups.	A person or persons falling from the work platform. Structural failure of the assembly.	Major or lost-time injury.	Authorisation for the use of band-stand scaffolds or hop-ups to be recorded in the Safety Method Statement. The platform height must not exceed 1.2m. Overloading must be prohibited. Safe ladder access point must be established.
Working from tubular steel or proprietary system scaffolds.	Structural failure or displacement of the scaffold. Failure of scaffold boards. Personnel falling from the scaffold. Materials falling from the scaffold.	Fatal, major or lost-time injury. Fatal, major or lost-time injury due to being struck by falling material/s.	Scaffold or section of the scaffold to be inspected by an authorised person to confirm suitability and structural integrity prior to use. Inspection sequence and method to be in accordance with company health & safety procedures. Work from incomplete or suspect scaffolding prohibited
Working from steps or ladders.	Failure of the steps/ladder. Falling from the steps/ladder.	Fatal, major or lost-time injury	Task to be subject to a specific risk assessment. If authorised, for short duration, light duty tasks only.

Working at heights			
Task	Hazard	Risk	Control
	Over-reaching from the steps/ladder.		Ladder to be footed and secured. Lone working prohibited.
Working from steps in the vicinity of energised electrical apparatus or apparatus capable of being energised	Making contact with or causing an arc from the apparatus to the steps.	Electric shock or flashover fatal or major injury. Damage to equipment	Steps made from non-conductive material only may be used in such locations.
Working from or resting ladders/ steps against cable trays, in-situ pipe-work	Failure of the tray suspension system. Failure of or damage to in-situ pipe work.	Fall from height – fatal or major injury. Uncontrolled release of liquid, gas or other substance being piped. major injury and/or damage	Working from suspended cable trays prohibited. Resting ladders/steps against in-situ services prohibited unless authorised by the service owner.
Issuing or using safety harnesses for the purpose of arresting the fall of a person.	Use untrained person. Failure to inspect the system before issue/ use. Attaching the system to an unapproved fixing point.	Fatal, major or lost-time injury in the event of a malfunction of the system or the anchorage point.	Safety harnesses to be issued to and used by trained personnel only. The task and location shall be subject to a specific risk assessment. The system shall be subject to a record keeping regime as prescribed by the manufacturer.

Further reading

Five Steps to Risk Assessments, INDG163 HSE Free Leaflet 1995 – ISBN 0 7176 09049