

We often conduct a rudimentary form of risk assessment without recognizing it as such. When we consider the consequences of an action, so as to inform our decision on how to perform that action, we have carried out an assessment of the risk. For example, when considering overtaking a vehicle we assess if we can do it safely.

WHAT IS RISK ASSESSMENT?

There are two components to risk assessment: **Risk Analysis** and **Risk Evaluation**.

Risk Analysis is the process of scrutinizing a task or job to identify all of the associated hazards. During this phase the adequacy of precautionary measures is examined, and the risk involved is measured qualitatively or quantitatively.

Risk Evaluation is the comparison of the measured risk against a pre-determined criterion to ascertain if the risk is tolerable.

The risk assessment process should be repeated until the risk is reduced to as low as is reasonably practicable.

HOW DO I CONDUCT A RISK ASSESSMENT?

STEP 1 - ESTABLISH THE OBJECTIVE

The reason for undertaking the risk assessment must be clearly understood, as should be the operation being assessed. The objective may be to comply with legislation or simply improve occupational standards, thus the requirements of the legislation or standards must be known.

STEP 2 - DEFINE THE ACTIVITY

The set of tasks making up the job or process must be stated. This lays the foundation for the next step.

STEP 3 - IDENTIFY THE HAZARDS

Examine every action so as to identify the potential hazards - those that may result from something going wrong, as well as those that may normally occur. A *hazard* is any physical, chemical or biological agent that has the potential to cause harm to individuals or damage to property.

Identifying hazards involves considering what; when; where; who; why; and how injury or damage can occur.

There are several techniques that may be used to assist in the identification of hazards such as: Hazard and Operability (HAZOP) Study; Failure Mode Effects Analysis (FMEA); Fault-Tree Analysis (FTA) and Task-Based Analysis (TBA).

STEP 4 - ANALYSING CONSEQUENCES

Once it has been established that hazards exist, it is necessary to analyse the consequences should the hazards materialise. This involves considering several factors including the number of persons affected; the severity and permanence of the injury.

STEP 5 - MEASURING THE RISK

Risk refers to the likelihood or probability that a hazard will actually occur. In assessing the risk, consideration is given to the consequences. The risk may be measured or estimated in quantitative; semi-quantitative or qualitative terms, using established models. In measuring the risk, attention may be given to the adequacy of existing control measures. This is the final step in the risk analysis component and is the precursor to the risk evaluation aspect.

STEP 6 - EVALUATING THE RISK

Having determined the degree of risk involved, the question is asked “*Is the risk tolerable?*” Recall that the primary objective should be to reduce the risk as low as is reasonably practicable (ALARP). With this in mind, the calculated risk is compared against identified criteria which may be established occupational standards or industry standards.

STEP 7 - TAKE ACTION

The need to take action will follow from the answer to Step 6. If the risk is found to be tolerable, no action may be necessary but the process must be monitored and the risk assessment repeated at a later date or if any changes are introduced. Where the risk is found to be unacceptable, appropriate corrective measures must be instituted. Care must be taken to ensure that the action to be instituted does not create new hazards.

STEP 8 - MONITOR AND REVIEW

Maintaining acceptable occupational safety and health standards is a continuous process, thus monitoring and reviewing is crucial. There may be instances when achieving acceptable standards must be

done incrementally, thus repeating the risk assessment is essential. Furthermore, conducting risk assessments at regular intervals demonstrates good enterprise governance and commitment to safeguarding the wellbeing of workers.

WHO SHOULD CONDUCT THE RISK ASSESSMENT?

All health and safety initiatives should be the joint effort of employers and workers, risk assessment is no exception. Using the team approach increases the chances of success by allowing for the recognition of all hazards - without which the process will be flawed.

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