

**RISK AND SAFETY MANAGEMENT PROFESSIONAL
(DEGREE) APPRENTICESHIP**

Glossary of Terms

GLOSSARY OF TECHNICAL TERMS

TERM	DEFINITION	SOURCE
Risk	Effect of uncertainty on objectives. Often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence. Risk is often characterized by reference to potential events and consequences, or a combination of these.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk management	Coordinated activities to direct and control an organization with regard to risk.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk management framework	A set of components that provide the foundations and organisational arrangements for designing, implementing, monitoring, reviewing and continually improving risk management throughout the organisation. The foundations include the policy, objectives, mandate and commitment to manage risk. The organizational arrangements include plans, relationships, accountabilities, resources, processes and activities.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk management policy	Statement of the overall intentions and direction of an organization related to risk management.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk management plan	Scheme within the risk management framework specifying the approach, the management components and resources to be applied to the management of risk. Management components typically include procedures, practices, assignment of responsibilities, sequence and timing of activities.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk management process	Systematic application of management policies, procedures and practices to the activities of communicating, consulting, establishing the context, and identifying, analysing, evaluating, treating, monitoring and reviewing risk.	ISO 31000:2009(E) Risk management — Principles and guidelines

TERM	DEFINITION	SOURCE
Risk management principles	<p>Risk management creates and protects value.</p> <p>Risk management is an integral part of all organizational processes.</p> <p>Risk management is part of decision making.</p> <p>Risk management explicitly addresses uncertainty.</p> <p>Risk management is systematic, structured and timely.</p> <p>Risk management is based on the best available information.</p> <p>Risk management is tailored.</p> <p>Risk management is transparent and inclusive.</p> <p>Risk management is dynamic, iterative and responsive to change.</p> <p>Risk management facilitates continual improvement of the organization.</p>	ISO 31000:2009(E) Risk management — Principles and guidelines
Context	Establishing the context involves defining the external and internal parameters to be taken into account when managing risk, and setting the scope and risk criteria for the risk management policy.	ISO 31000:2009(E) Risk management — Principles and guidelines
Stakeholder	Person or organization that can affect, be affected by, or perceive themselves to be affected by a decision or activity.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk assessment	The overall process of risk identification, risk analysis and risk evaluation.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk identification	The process of finding, recognizing and describing risks.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk analysis	Process to comprehend the nature of risk and to determine the level of risk. Includes risk estimation.	ISO 31000:2009(E) Risk management — Principles and Guidelines
	Consists of determining the consequences and their probabilities for identified risk events, taking into account the presence (or not) and the effectiveness of any existing controls. The consequences and their probabilities are then combined to determine a level of risk. Involves consideration of the causes and sources of risk, their consequences and the probability that those consequences can occur.	IEC/FDIS 31010:2009(E) Risk management — Risk assessment techniques

TERM	DEFINITION	SOURCE
Risk evaluation	Process of comparing the results of risk analysis with risk criteria to determine whether the risk and/or its magnitude is acceptable or tolerable.	ISO 31000:2009(E) Risk management — Principles and Guidelines
Level of risk	Magnitude of a risk or combination of risks, expressed in terms of the combination of consequences and their likelihood.	ISO 31000:2009(E) Risk management — Principles and Guidelines
Risk criteria	Terms of reference against which the significance of a risk is evaluated.	ISO 31000:2009(E) Risk management — Principles and Guidelines
	The criteria by which it will be decided when a risk needs treatment, the criteria for deciding when a risk is acceptable and/or tolerable, whether and how combinations of risks will be taken into account.	IEC/FDIS 31010:2009(E) Risk management — Risk assessment techniques
Risk treatment	<p>Process to modify risk. Risk treatment can involve:</p> <ul style="list-style-type: none"> avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk; taking or increasing risk in order to pursue an opportunity; removing the risk source; changing the likelihood; changing the consequences; sharing the risk with another party or parties (including contracts and risk financing); and retaining the risk by informed decision. <p>Risk treatments that deal with negative consequences are sometimes referred to as “risk mitigation”, “risk elimination”, “risk prevention” and “risk reduction”.</p> <p>Risk treatment can create new risks or modify existing risks.</p>	ISO 31000:2009(E) Risk management — Principles and Guidelines
Residual risk	Risk remaining after risk treatment. Can be referred to as “retained risk”.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk source	<p>Element which alone or in combination has the intrinsic potential to give rise to risk.</p> <p>In safety the term “hazard” is often used.</p>	ISO 31000:2009(E) Risk management — Principles and guidelines

TERM	DEFINITION	SOURCE
Consequence	Outcome of an event affecting objectives.	ISO 31000:2009(E) Risk management — Principles and guidelines
Likelihood	Chance of something happening.	ISO 31000:2009(E) Risk management — Principles and guidelines
Control	Measure that is modifying risk.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk profile	Description of any set of risks.	ISO 31000:2009(E) Risk management — Principles and guidelines
Monitoring	Continual checking, supervising, critically observing or determining the status in order to identify change from the performance level required or expected.	ISO 31000:2009(E) Risk management — Principles and Guidelines
Review	Activity undertaken to determine the suitability, adequacy and effectiveness of the subject matter to achieve established objectives.	ISO 31000:2009(E) Risk management — Principles and Guidelines
Risk attitude	Organisation's approach to assess and eventually pursue, retain, take or turn away from risk.	ISO 31000:2009(E) Risk management — Principles and guidelines
Risk owner	Person or entity with the accountability and authority to manage a risk.	ISO 31000:2009(E) Risk management — Principles and guidelines
Management system	A structured set of controls (e.g. policies, plans, procedures, etc.) for managing risk throughout the business, to ensure that business objectives are met. Different organisations may define the management system components differently, but the essential components of plan, do, check, feedback are common across management system models.	Managing for Health and Safety, HSG65, HSE Books http://www.hse.gov.uk/pubns/books/hsg65.htm

TERM	DEFINITION	SOURCE
Risk assessment techniques	Methods used for risk assessment, such as (but not limited to): Brainstorming; Structured or semi-structured Interviews; Delphi; Check-lists; Preliminary hazard analysis; Hazard and operability studies (HAZOP); Hazard Analysis and Critical Control Points (HACCP); Environmental risk assessment; What if? Analysis and Structured What if Technique (SWIFT); Scenario analysis; Business impact analysis; Root cause analysis; Failure mode effect analysis and Failure mode effect and criticality analysis; Fault tree analysis; Event tree analysis; Cause and consequence analysis; Cause-and-effect analysis; Layer protection analysis (LOPA); Decision tree; Human reliability analysis; Bow tie analysis; Reliability centred maintenance; Sneakanalysis and sneak circuit analysis; Markov analysis; Monte Carlo simulation; Bayesian statistics and Bayes Nets; FN curves; Risk indices; Consequence/probability matrix; Cost/benefit analysis; Multi-criteria decision analysis (MCDA); Toxicity Assessment.	IEC/FDIS 31010:2009(E) Risk management — Risk assessment techniques
Qualitative (methods)	Qualitative assessment defines consequence, probability and level of risk by significance levels such as “high”, “medium” and “low”, may combine consequence and probability, and evaluates the resultant level of risk against qualitative criteria.	IEC/FDIS 31010:2009(E) Risk management — Risk assessment techniques
Semi-quantitative (methods)	Semi-quantitative methods use numerical rating scales for consequence and probability and combine them to produce a level of risk using a formula. Scales may be linear or logarithmic, or have some other relationship; formulae used can also vary.	IEC/FDIS 31010:2009(E) Risk management — Risk assessment techniques
Quantitative (methods)	Quantitative analysis estimates practical values for consequences and their probabilities, and produces values of the level of risk in specific units defined when developing the context. Full quantitative analysis may not always be possible or desirable due to insufficient information about the system or activity being analysed, lack of data, influence of human factors, etc. or because the effort of quantitative analysis is not warranted or required. In such circumstances, a comparative semi-quantitative or qualitative ranking of risks by specialists, knowledgeable in their respective field, may still be effective. Even where full quantification has been carried out, it needs to be recognized that the levels of risk calculated are estimates. Care should be taken to ensure that they are not attributed a level of accuracy and precision inconsistent with the accuracy of the data and methods employed.	IEC/FDIS 31010:2009(E) Risk management — Risk assessment techniques

TERM	DEFINITION	SOURCE
Influence	The power and ability to personally affect others' actions, decisions, opinions or thinking.	How To Influence When You Don't Have Authority, Harold Scharlatt https://www.forbes.com/2011/01/03/influence-persuasion-cooperation-leadership-managing-ccl.html
Authority	A power or right delegated or given. The power to determine, adjudicate, or otherwise settle issues or disputes; jurisdiction; the right to control, command, or determine.	http://www.dictionary.com
Human factors	Environmental, organisational and job factors, and human and individual characteristics, which influence behaviour at work in a way which can affect health and safety.	Reducing error and influencing behaviour, HSG48, HSE Books http://www.hse.gov.uk/humanfactors/introduction.htm
Driver	Factor which influences us, companies and other organisations when deciding how (and if) to manage risks. Factor which can influence our perception of risk. Drivers can be external or internal. Examples include financial concerns, commercial / strategic issues, operational drivers, regulatory requirements, personal motives, etc.	A Risk Management Standard, Institute of Risk Management, 2002.
Risk perception	How people think about risk, their attitude to risk. This can influence how they choose to manage and respond to risk. Arises from an individual's biological makeup, their varying cultural influences, their life experiences and the associated memories and learning. Affected by our understanding of how risks relate to us, the degree of control we believe we have over them, how well we understand them, etc.	Lennart Sjoberg, 'Factors in Risk Perception', Risk Analysis, Vol 20, No 1, 2000. Reducing Risks Protecting People, UK HSE, 2001. The Psychology of Safety, Jop Groeneweg, Leiden university, TNO, Risk Management Pro, Perth, 10 August 2010.
Inherent safety	A fundamental approach to hazard management which emphasises eliminating or reducing the risk at source rather than relying on add-on safety features, management systems and procedures to control the risk.	Improving Inherent Safety, Prepared by AEA Technology plc and Loughborough Consultants for HSE, OTH 521 http://www.hse.gov.uk/research/othpdf/500-599/oth521.pdf

TERM	DEFINITION	SOURCE
ALARP	“ALARP” is short for “as low as reasonably practicable”. “SFAIRP” is short for “so far as is reasonably practicable”. The two terms mean essentially the same thing and at their core is the concept of “reasonably practicable”. ALARP describes the level to which we expect to see workplace risks controlled.	http://www.hse.gov.uk/risk/theory/alarpglance.htm
Reasonably practicable	Involves weighing a risk against the trouble, time and money needed to control it. ‘Reasonably practicable’ is a narrower term than ‘physically possible’. If the risk reduction (benefit) is compared to the sacrifice (i.e. money, time or trouble) involved in implementing the measure necessary for reducing/averting the risk, and if it can be shown that there is a gross disproportion between them – the benefit being insignificant in relation to the sacrifice – then the measure is not reasonably practicable. Using “reasonably practicable” allows a regulator to set goals for duty-holders, rather than being prescriptive.	http://www.hse.gov.uk/risk/theory/alarpglance.htm
Prescriptive regulatory approach	The regulator specifies the steps a duty-holder must take to comply with the law.	http://www.hse.gov.uk/risk/theory/alarpglance.htm

GLOSSARY OF ASSESSMENT COMMAND (INSTRUCTION) WORDS

TERM	DEFINITION	SOURCE¹
Analyse	Separate information into components and identify their characteristics.	
Apply	Put into effect in a recognised way.	
Argue	Present a reasoned case.	
Assess	Make an informed judgement.	
Comment	Present an informed opinion.	
Compare	Identify similarities.	
Contrast	Identify differences.	
Criticise	Assess worth against explicit expectations.	
Deduce	Draw conclusions from information provided.	
Define	Specify meaning.	
Demonstrate	Show how, with examples to illustrate.	University of Leicester Study Guide, Essay Terms Explained http://www2.le.ac.uk/offices/ld/resources/study-guides-pdfs/writing-skills-pdfs/essay-terms-explained
Describe	Set out characteristics.	
Develop	Take forward or build upon given information.	
Discuss	Present key points.	
Evaluate	Judge from available evidence.	
Examine	Investigate closely.	
Expertise	A high level of knowledge or skill	http://dictionary.cambridge.org/dictionary/english
Explore	Investigate without preconceptions about the outcome.	

¹ Source is AQA, <http://www.aqa.org.uk/student-support/for-students/revision/understanding-the-question> unless otherwise stated.

TERM	DEFINITION	SOURCE¹
Familiarity	A good knowledge of something	http://dictionary.cambridge.org/dictionary/english
Give	Produce an answer from recall.	
Illustrate	Present clarifying examples.	
Justify	Support a case with evidence.	
Outline	Set out main characteristics.	
Prove	Demonstrate validity on the basis of evidence.	
State	Express in clear terms.	
Suggest	Present a possible case.	
Summarise	Present principal points without detail.	
