SAFETY SERVICES ORGANISATION

SAFETY AND HAZARD ASSESSMENT MODULE

INTRODUCTION

INTRODUCTION – ADMIN

Course aim -

- To develop an understanding of safety and hazard assessment.

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Learning outcomes -

- Critically analyse the requirements for Safety Led Design, hazard identification (HazID) and hazard operability (HazOp)
- Effectively communicate to specialist and non-specialist audiences the outcomes of HazID & HazOp processes.

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Indicative content -

- Safety Led Design.
- HazID and HazOp.
- Hazard and Risk Assessment.
- Principles of ALARP.
- Safety Cases.

INTRODUCTION – MODULE PLAN

Day	Topic(s)	Approximate Time (hours)
Monday	General Introduction	1
	Principles of ALARP	2
	Safety Led Design	2
Tuesday	Safety Led Design	1
	Hazard Identification and Hazard Operability	4
	Hazard and Risk Assessment	1
Wednesday	Hazard and Risk Assessment	6
Thursday	Hazard and Risk Assessment	2
	Hazard Logs and Safety Cases	3
	OME Legislation	1

INTRODUCTION – TIMETABLE

	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
MON		INTRODUCTION	PRINCIPLES OF ALARP		LUNCH	SAFETY LED DESIGN		
TUE	SAFETY LED DESIGN	HAZARD ID AND HAZARD OP			LUNCH	HAZARD ID AND HAZARD OP	HAZARD AND RISK ASSESSMENT	
WED	HAZARD AND RISK ASSESSMENT				LUNCH	HAZARD AND RISK ASSESSMENT		
THUR	HAZARD AND RISK ASSESSMENT		HAZARD LOGS AND SAFETY CASES		LUNCH	HAZARD LOGS AND SAFETY CASES	OME LEGISLATION	
FRI	ASSESSMENT AND PLENARY			LUNCH	ASSESSMENT AND PLENARY			

INTRODUCTION – WHO ARE WE?

Combined 27 years in the industry

Writing and using hazard and risk assessments

Hazardous activities management and guidance

Working Trials and Trials Safety roles

- Complex Systems
  - Missiles
  - Armoured Vehicles
  - Small arms through to Large Calibre weapons systems
  - Both management and hand on experience
- Complex Systems of Systems
  - Ranged and Laboratories in both air and land domains

Now contracting to large Defence Primes to give advice and guidance

INTRODUCTION – WHO ARE YOU?

TELL US A LITTLE ABOUT YOURSELVES

SAFETY AND HAZARD ASSESSMENT - INTRODUCTION

BASIC TERMINOLOGY AND DEFINITIONS

DEFINITIONS – TERMINOLOGY

Hazard -

- Any item, individual, or situation with the potential to cause harm

Harm -

- Physical or mental damage – Injury, fatality, exposure, etc.

Likelihood -

- The chance or frequency of something happening

Risk -

- The product of the likelihood of occurrence and the consequence if it does indeed occur
  - A risk does not exist without a hazard.

Accident -

- The result of a hazard, event, or series of events/hazards leading to a harm

Definitions source:
HSE Research Report 151. Good practice and pitfalls in risk assessment. Health and Safety Laboratory for the Health and Safety Executive. 2003. https://www.hse.gov.uk/research/rrpdf/rr151.pdf
Acquisition Safety and Environmental Management System. Definitions. https://www.asems.mod.uk

DEFINITIONS – TERMINOLOGY

Control -

- Procedures, products, engineering solutions or methods that reduce the risk

Mitigation -

- Procedures, products, engineering solutions or methods that reduce the consequence of an accident

Risk Assessment -

- A method of identifying and capturing the Risks, Hazards, Controls, and Mitigations
  - Required by The Health and Safety at Work Act and the Management of Health and Safety at Work Regulations

Sentencing -

- The judgement on any required remedial action, e.g. Mitigation Strategy

Definitions sources:
Def Stan 00-056. Part 1. Issue 6 and Issue 7
Acquisition Safety and Environmental Management System. Definitions. https://www.asems.mod.uk

DEFINITIONS – TERMINOLOGY

ALARP -

- As Low As Reasonably Practicable
  - Further detailed in lecture two.

Safety Management System -

- The organisational structure, processes, procedures and methodologies that enable the direction and control of the activities necessary to meet Safety Requirements and safety policy objectives.

Safety Management Plan -

- A document that defines the strategy for addressing safety and documents the Safety Management System for a specific project.

Definitions sources:
Def Stan 00-056. Part 1. Issue 6 and Issue 7
Acquisition Safety and Environmental Management System. Definitions. https://www.asems.mod.uk

THANK YOU FOR LISTENING

ANY QUESTIONS?

SAFETY SERVICES ORGANISATION