

**KASA Redberg**  
*Engineers & Technical Trainers*

# **Safety-in-Design Fundamentals for Australian Designers**

# Safety in Design Fundamentals for Australian Designers

## Introduction

In recent years there has been a concerted effort across the states and territories of Australia to "harmonise" the work health and safety obligations of persons conducting a business or undertaking (PCBUs) as well as those, such as designers, who work for, or provide services to PCBUs.

These obligations revolve around the need for designers to produce designs that lead to safe workplaces (i.e. safe buildings, structures, plant and equipment).

The purpose of this three hour online (e-learning) course is to provide basic instruction and guidance on the WHS obligations of designers in Australia as well as provide recommendations on how best to fulfil these obligations thereby providing safer designs.

## Who Should Access the Course

Design Engineers, Project Engineers, Consulting Engineers; Line Managers and Supervisors; Design & Construct Professionals, or anyone who needs to understand the WHS obligations relating to the design of buildings, structures, plant and equipment.

## Delegate Pre-Requisites

No previous knowledge or qualifications are required.

## Course Objectives

At the completion of this course, each delegate should be able to:

- Understand the state of harmonisation relating to WHS legislation in Australia.
- Define key WHS terms.
- Know where to obtain WHS related information in the public domain as well as know the role of each WHS authority.
- Better understand the seven principles of safety in design.
- Be aware and have a basic appreciation of systematic risk management as well as hazard identification and analysis tools such as: HAZID, HAZOP, CHAIR, Fault Tree Analysis, Event Tree Analysis, Risk Registers and Risk Assessment Matrices.
- Have a better understanding of safety-related information transfer and the specific inclusions required in design safety reports and construction safety reports.

## Training Course Materials

All users receive:

- The "Safety in Design – Fundamentals for Australian Designers" Training Manual – a reference manual in PDF format comprising terms and definitions, theory, guidance and instructions etc based on the course outline. This manual has been designed to be a valuable future resource for the office.

- Certificate of Attendance** – which states the number of CPD\* hours of training and serves as documentary proof of completion.

*CPD hours = Continuing Professional Development hours allocated in accordance with Engineers Australia policy.*

## Learning Management System & User Access

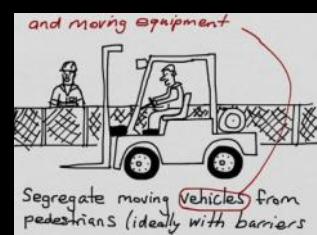
This course and the training course materials are accessed through the KASA Redberg learning management system (LMS) which is hosted by Litmos.

Login details are provided to registrants via the KASA Redberg website once payment has been made via credit card or a PayPal account. Once the funds have been received, an auto-generated email with login details and a receipt of payment will be sent to the registrant. This usually only takes a few minutes. The registrant can then access the course immediately by following the links in the email or by returning to the appropriate page on the KASA Redberg website.

## Access via Your Company's Intranet or LMS

Should your company have multiple users who want to access one or more of our online courses, it may be more cost effective to pay a fee for access where we can assign courses in bulk to your staff. Alternatively, an annual fee can be paid for the course files to be provided to your IT Department for incorporation into your own company's intranet or learning management system. Please contact KASA Redberg on (02) 5105 4082 or [info@kasa.com.au](mailto:info@kasa.com.au) to find out more.

It should also be noted that all of our online courses are easily viewed on a PC, Mac, iPhone, iPad or any Android phone/tablet device.



# Safety in Design

## Fundamentals for Australian Designers

### Course Synopsis

#### MODULE 1 – INTRODUCTION & BACKGROUND

- Common Terms and Definitions
- What is SiD and Why is it Important?
- Designer
- Building or Structure
- Plant
- Workplace
- Person Conducting a Business of Undertaking (PCBU)
- Lifecycle

#### MODULE 2 - THE WHS LANDSCAPE IN AUSTRALIA

- The Australian WHS Landscape
- Acts, Regulations and COPs

#### MODULE 3 - DUTIES

- The Duties of a Designer
- The Duties of the Client
- Getting it Wrong
- What is Reasonably Practicable?

#### MODULE 4 – THE PRINCIPLES OF SiD

- Principle 1 – Persons With Control
- Principle 2 – Consider the Whole Lifecycle
- Principle 3 – Systematic Risk Management
- Principle 4 – Safe Design Knowledge and Capability
- Principle 5 – Information Transfer
- Principle 6 – Consultative Process
- Principle 7 – Ergonomics

#### MODULE 5 – A FOCUS ON SYSTEMATIC RISK MANAGEMENT

- Step 1 – Hazard Identification
- Step 2 – Risk Assessment
- Step 3 – Risk Control Process

#### MODULE 6 – A FOCUS ON INFORMATION TRANSFER

- The Safe Design Report
- The Risk Register
- The Safe Design WHS File
- The Construction Safety Report
- The Plant Hazard Report
- The Use of Drawings and Other Documents

#### MODULE 7 – TIPS FOR SAFE DESIGN

- Video of safe design tips



## **About KASA Redberg**

KASA Redberg is a technical training and engineering consulting group.

We have core competencies in pumping systems, piping systems, pipelines, pressure vessels and slurry handling systems. We also act as independent HAZOP workshop facilitators and Safety-in-Design workshop facilitators.

Our portfolio of services includes:

- Tank and vessel design.
- Chemicals plant design.
- Water treatment plant design.
- Pumping and piping systems design.
- Pump station and pipeline design
- Mine dewatering and water supply systems design.
- Pipe stress analysis
- Pipeline hydraulic modelling
- Water hammer analysis
- Slurry piping systems design and slurry pump selection.
- On-site troubleshooting of pumps and piping systems.
- Operator training courses
- HAZOP workshop facilitation
- Safety-in-Design workshop facilitation

## **Contact Details**

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