



## Objectives

- 1) To understand the obligations of a site manager
- 2) To understand a Safe System of Work Plan (SSWP) document
- 3) To be able to identify the different categories of safety signage
- 4) To understand the different aspects of the hierarchy of risk control
- 5) To be able to determine different ways of reducing risk in each of the specific risk areas (*identified in Lesson 1*)

## Introduction

Inform students that they will learn about how a site manager deals with hazards that are identified on site; how they endeavour to reduce the risks posed by the hazards; and the different types of safety signage that exist on construction sites.

## Development

### Safe System of Work Plan (SSWP)

Ask the students to look at question 1 (**Risk Control Activity Sheet**) - the Safe System of Work Plan that site managers use to complete risk assessment. Discuss why a SSWP is needed. Ask students to complete question 1, identifying controls and risks. Draw attention to the requirement of site managers to ensure that workers have appropriate training, including **Safe Pass, Construction Skills Certification Scheme, Plant and Equipment Certificates of Competence**.

### Signage

Ask the students to discuss the importance of appropriate safety signage, including examples from their studies. Explain that safety signage is a requirement on all construction sites for workers, site visitors and the general public. Signage can be divided into the following categories:

- **Red** for prohibition
- **Yellow** for caution
- **Green** for positive action
- **Blue** for mandatory actions
- **Discs** for prohibitions and instructions
- △ **Triangles** for warnings
- **Squares and rectangles** for emergency and information signs

Draw the following sign on the board, eliciting that it signifies an **electrical hazard**.



## Resources

- Risk Control Activity Sheet

## Key Vocabulary

- Safe System of Work Plan (SSWP)
- Personal Protective Equipment (PPE)
- Prohibition
- Mandatory
- Hierarchy



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CHALLENGE

## Risk Control Lesson Plan 2



### Development (continued)

#### Hierarchy of Risk Control

Explain how the hierarchy of risk control is used to determine priorities involved in controlling risks. Discuss each level:

- 1) Eliminate the hazard
- 2) Substitute the hazard with a lower risk alternative
- 3) Use engineering controls
- 4) Use administrative controls
- 5) Personal Protective Equipment (PPE)

As a class, discuss how some of the risks they identified in Lesson 1, question 2, can be reduced using the hierarchy of risk control. For example:

- **Operating heavy machinery:**
  - Always consult with ESB Networks when planning on working near overhead wires and underground cables.
  - In operating heavy machinery, reduce risk by erecting height-restricting barriers to control access and safety signage to warn operators of the hazards associated with overhead wires.
- **Using power tools:**
  - Do not use power tools unless you are competent and the tools are fit for purpose and appropriate for the site.

#### Conclusion

Ask students to complete question 2 (**Risk Control Activity Sheet**) in pairs or groups, identifying ways to reduce or eliminate hazards through the use of the hierarchy of risk control.



## 1. Ask students to look at the image and identify some of the risks and controls. Discuss as a class.

Extract from a Safe System of Work Plan (SSWP) for a Domestic Dwelling

SELECT HAZARD OR ACTIVITY	SELECT CONTROL Tick the <input checked="" type="checkbox"/> box to identify controls required; Tick the <input checked="" type="checkbox"/> circle when control is in place.										
<input type="checkbox"/>  Ground Floor	<input type="checkbox"/>  Housekeeping <input type="checkbox"/>	<input type="checkbox"/>  Access Route <input type="checkbox"/>	<input type="checkbox"/>  Rebar <input type="checkbox"/>	<input type="checkbox"/>  Trestle Platform <input type="checkbox"/>	<input type="checkbox"/>  Ground Conditions <input type="checkbox"/>	<input type="checkbox"/>  Scaffold <input type="checkbox"/>	<input type="checkbox"/>  Pedestrian Route <input type="checkbox"/>	<input type="checkbox"/> Other <input type="checkbox"/>	<input type="checkbox"/> Other <input type="checkbox"/>	<input type="checkbox"/> Other <input type="checkbox"/>	<input type="checkbox"/> Other <input type="checkbox"/>
<input type="checkbox"/>  Upper Floors	<input type="checkbox"/>  Scaffold <input type="checkbox"/>	<input type="checkbox"/>  Working Platform <input type="checkbox"/>	<input type="checkbox"/>  Loading Bay <input type="checkbox"/>	<input type="checkbox"/>  Ladder Access <input type="checkbox"/>	<input type="checkbox"/>  Safe Ladder <input type="checkbox"/>	<input type="checkbox"/>  Tie Ladder <input type="checkbox"/>	<input type="checkbox"/>  Edge Protection <input type="checkbox"/>	<input type="checkbox"/>  Stair Protection <input type="checkbox"/>	<input type="checkbox"/>  Housekeeping <input type="checkbox"/>	<input type="checkbox"/>  Access Route <input type="checkbox"/>	<input type="checkbox"/> Other <input type="checkbox"/>
<input type="checkbox"/>  Electricity	<input type="checkbox"/>  ESB <input type="checkbox"/>	<input type="checkbox"/>  Divert/Off <input type="checkbox"/>	<input type="checkbox"/>  Survey Map <input type="checkbox"/>	<input type="checkbox"/>  Detector/CSCS <input type="checkbox"/>	<input type="checkbox"/>  Over Head Lines <input type="checkbox"/>	<input type="checkbox"/>  Warning Signs <input type="checkbox"/>	<input type="checkbox"/>  Hand Dig <input type="checkbox"/>	<input type="checkbox"/>  Barriers <input type="checkbox"/>	<input type="checkbox"/>  Tipping <input type="checkbox"/>	<input type="checkbox"/> Other <input type="checkbox"/>	<input type="checkbox"/> Other <input type="checkbox"/>

Image from Health and Safety Authority SSWP for a domestic dwelling

Other elements that a site manager will look for from workers as part of the SSWP are Safe Pass Cards, Construction Skills Certification Scheme and Plant Equipment Certificate.

Using the images above, list 5 controls and describe what risk is being controlled.

CONTROL:	RISK:



## 2. Discuss in pairs, the two work scenarios described below and write your solutions.

For the following hazards, use the hierarchy of risk control to suggest some methods to eliminate or reduce the risk posed by the situation/hazard.

- 1) Eliminate
  - 2) Substitute
  - 3) Engineering controls
  - 4) Administrative controls
  - 5) Use Personal Protective Equipment (PPE)
- A. After consulting with **ESB Networks**, a site manager receives information informing them that there are overhead electricity wires on the site.

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- B. A builder notices that there is a piece of rebar (*steel reinforcing bar – used to reinforce concrete*) sticking out near the base of a poured concrete column that could cause injury to someone walking past it.

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