

Lesson Plan

Competency Unit: Apply Workplace Safety and Health in Process Plant

Competency Descriptor: Upon completion of this unit, learners will the skills and knowledge in applying workplace safety and health practices to ensure the safety of oneself and others at work in the Oil and Petrochemical Industry

Competency Level: Level 1

Summary of Competency Elements

This competency unit consists of the following elements:

- CE1. Identify the roles and responsibilities of an employee under the Workplace Safety and Health Act
- CE2. Identify and prevent fire and explosion hazards at the workplace
- CE3. Comply with safe work practices and control measures for material handling
- CE4. Comply with safe work practices and control measures for mechanical and electrical works
- CE5. Comply with safe work practices and control measures when working on specialized operations
- CE6. Comply with safe work practices and control measures when working at Heights
- CE7. Comply with safe work practices and control measures when working in a confined space

Total Duration: 8 hrs Training + 1 hr Assessment

| Competency Element | Topics/Performance | Time Allocated & Activities | Assessment |
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| Day 1 (08.00am-06.30pm, inclusive of 2 tea break& 1 Lunch Break) | | | |
| CE 1 | 1.1 Comply with the requirements of WSH Act 1.2 Participate in a tool box meeting 1.3 Select and use the appropriate personal protective equipment provided for the work in compliance with WSH Act 1.4 Maintain and store personal protective equipment provided in accordance with organizational procedures 1.5 Interpret and follow safety signs and instructions at workplace 1.6 Follow road safety signs 1.7 Identify safety devices and emergency equipment 1.8 Carry out housekeeping of workplace in accordance with organizational procedures | 60mins/ 1 hr (08.00am – 09.00am) | ▪ Lecture |
| CE 2 | 2.1 Identify fire hazards associated with the workplace and report to appropriate person in accordance with organisational procedures. 2.2 Interpret the types of fire safety signs and | 60mins/ 1 hr (09.00am-10.00am) | ▪ Lecture |

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| | <p>instructions</p> <p>2.3 Check safety signs and instructions at workplace for inadequacy and report to appropriate person in accordance with organisational procedures.</p> <p>2.4 Work in accordance with an issued permit-to-work</p> <p>2.5 Follow safe work procedures for hot work</p> <p>2.6 Follow organisational procedures to respond to a fire emergency</p> <p>2.7 Report unsafe working conditions and potential fire hazards to appropriate person in accordance with organisational procedures</p> <p>2.8 Select and use the correct solvents for chemical cleaning</p> <p>2.9 Store and control chemicals safely</p> | | | |
| | <ul style="list-style-type: none"> Assessment Activity 1 & 2: Individual submission | <p>5mins (10.00am-10.05am)</p> | <ul style="list-style-type: none"> Written / Oral Questioning | |
| <p>TEA BREAK 15 mins (10.05am – 10.20am)</p> | | | | |
| CE 3 | <p>3.1 Use the correct method for manually handling of loads</p> <p>3.2 Carry out proper use of machine equipment</p> <p>3.3 Follow rules and procedures when operating mechanical lifting equipment</p> <p>3.4 Comply with the safe rigging and slinging method of lifting</p> <p>3.5 Coordinate the use of lifting machines</p> | <p>60mins/ 1 hr (10.20am-11.20am)</p> | <ul style="list-style-type: none"> Lecture | |

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| | /equipment | | | |
| | 3.6 Select and use the correct PPE for manual handling | | | |
| CE 4 | 4.1 Identify and recognize common mechanical and electrical hazards | 60mins/ 1 hr (11.20am-12.20pm) | ▪ Lecture | |
| | 4.2 Follow hazards control prevention measures | | | |
| | 4.3 Select and use the correct PPE for electrical work | | | |
| | LUNCH BREAK 60 mins (12.20pm – 01.20pm) | | | |
| | 4.4 Comply with procedures when using and maintaining the machinery | 60mins/ 1 hr (01.20pm-02.20pm) | | |
| 4.5 Proper use and storage of hand tools | | | | |
| 5. Selection and proper use of hearing protection | | | | |
| | ▪ Assessment Activity 3 & 4: Individual submission | 5mins (02.20pm-02.25pm) | ▪ Written / Oral Questioning | |
| CE 5 | 5.1 Recognize hazards associated with <i>specialized operations</i> | 60mins/ 1 hr (02.25pm-03.25pm) | ▪ Lecture | |
| | 5.2 Follow preventive measures when working with radiation, steam, gases and chemicals | | | |
| | 5.3 Use and read gas detectors | | | |
| | 5.4 Work and comply with the Permit –to-Work System | | | |
| | 5.5 Use Lock Out Tag Out (LOTO) | | | |
| | 5.6 Apply safe work procedures when handling chemicals and related biological materials | | | |
| | 5.7 Minimising the effects of prolong exposure to | | | |

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| | working under the sun | | | |
| | 5.8 Follow safety measures for transporting workers on lorries | | | |
| | ▪ Assessment Activity 5 : Individual submission | 5mins (03.25pm-03.30pm) | ▪ Written / Oral Questioning | |
| TEA BREAK 15 mins (03.30pm – 03.45pm) | | | | |
| CE 6 | 6.1 Select the correct fall protection equipment for the work | 60mins/ 1 hr (03.45pm – 04.45pm) | ▪ Lecture | |
| | 6.2 Safe use of fall protection equipment | | | |
| | 6.3 Correct way of using and maintenance the ladder at workplace | | | |
| | 6.4 Correct way of anchorage at height | | | |
| | 6.5 Follow procedures for rescue at height | | | |
| | 6.6 Proper disposal of debris and housekeeping while working at height | | | |
| | 6.7 Correct use of ladder | | | |
| | 6.8 Caring and maintaining fall protection equipment | | | |
| | ▪ Assessment Activity 6: Practical Performance | 10mins (04.45pm – 04.55pm) | ▪ Practical Performance | |
| CE 7 | 7.1 Recognize what constitutes a confined space | 60mins/ 1 hr (04.55pm – 05.55pm) | ▪ Lecture | |
| | 7.2 Identify hazards when working in a confined space | | | |
| | 7.3 Follow measures to prevent and control hazards when working in confined space | | | |

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| | 7.4 Check and read gas meter 7.5 Perform rescue for confined space | | | |
| | <ul style="list-style-type: none">Assessment Activity 7: Individual submission | 5mins (05.55pm – 06.00pm) | <ul style="list-style-type: none">Written / Oral Questioning | |
| End course assessment (30mins) <ul style="list-style-type: none">MCQ paper set 1MCQ paper set 2MCQ paper set 3MCQ paper set 4 | | 30mins (06.00pm – 06.30pm) | <ul style="list-style-type: none">Written / Oral Questioning | |
| Total Training duration | | 480 mins/8 hrs | | |
| Total Assessment duration | | 60 mins/1 hr | | |