

FIRE CONTROL SYSTEMS INSTALLATION

UNIT CODE: CON/CU/PL/CR/07/5/A

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Install fire control systems

Duration of Unit: 80 hours

Unit Description

This unit specifies the competencies required to install fire control systems. It involves preparing working drawings, selecting tools and equipment for installation, quantify and cost materials and supplies, install sprinkler systems, install hose reel systems, install wet and dry risers and maintain and service fire suppression systems. It applies in the construction industry.

Summary of Learning Outcomes

1. Prepare working drawing
2. Select tools and equipment
3. Quantify materials and supplies
4. Install sprinkler systems
5. Install hose reel systems
6. Install wet and dry risers
7. Maintain and service fire suppression systems

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Prepare working drawing	<ul style="list-style-type: none">• Terms and Concepts• Symbols• Measurements• Types of Scales• Types of drawings	<ul style="list-style-type: none">• Practical Tests• Written tests• Oral questioning• Interviewing• Third party reports
2. Select tools and equipment	<ul style="list-style-type: none">• Terms and concepts• PPEs and their use• Use of fire control installation tools and equipment	<ul style="list-style-type: none">• Practical Tests• Written tests• Oral questioning• Interviewing• Third party reports

	<ul style="list-style-type: none"> • Safety, care and maintenance of fire control installation tools and equipment • Storage of fire control installation tools and equipment 	
3. Quantify materials and supplies	<ul style="list-style-type: none"> • Terms and concepts • Fire control installation materials and supplies • Fire control fittings • Fire control installation Material schedule • Estimation and cost of quantities 	<ul style="list-style-type: none"> • Practical Tests • Written tests • Oral questioning • Interviewing • Third party reports
4. Install Sprinkler systems	<ul style="list-style-type: none"> • Terms and concepts • Classification of fire • Types of Sprinklers systems <ul style="list-style-type: none"> ✓ Pre-Action Systems ✓ Dry Pipe Systems ✓ Wet Pipe Systems • Automatic fire detectors • Types of Pipes <ul style="list-style-type: none"> ✓ GI ✓ PVC ✓ PPR ✓ CPVC • Types of Joints and connections • Setting out • Bending • Fitting • Types of testing <ul style="list-style-type: none"> ✓ Air ✓ Smoke ✓ Pressure • Faults • valves • Adhesives • Fittings • Occupational safety and legal framework 	<ul style="list-style-type: none"> • Practical Tests • Written tests • Oral questioning • Interviewing • Third party reports

<p>5. Install hose reel systems</p>	<ul style="list-style-type: none"> • Terms and concepts <ul style="list-style-type: none"> ✓ Types of fire hose reel systems Stationary Hose Reels ✓ Mobile or Portable Hose Reels ✓ Hose Reel Carts ✓ Hideaway Hose Reels ✓ Air Hose Reels • Installation of hose reel systems • Tests • faults • House keeping • valves 	<ul style="list-style-type: none"> • Practical Tests • Written tests • Oral questioning • Interviewing • Third party reports
<p>6. Install fire risers systems</p>	<ul style="list-style-type: none"> • Terms and concepts • Types of riser's systems • Installation of fire <ul style="list-style-type: none"> ✓ Dry Pipe Systems ✓ Wet Pipe Systems • Tests • faults • House keeping • valves 	<ul style="list-style-type: none"> • Practical Tests • Written tests • Oral questioning • Interviewing • Third party reports
<p>7. Maintain and service fire suppression systems</p>	<ul style="list-style-type: none"> • Terms and concepts • Types of maintenance • Servicing and cleaning gas supply systems • Checks • Fire drills 	<ul style="list-style-type: none"> • Practical Tests • Written tests • Oral questioning • Interviewing • Third party reports

Suggested Methods of Instructions

- Discussions
- Demonstration
- visiting Lecturer/Expert
- Industrial Visits

Recommended Resources

Functional Plumbing Workshop with the following:

Tools and Equipment

- Pipe wrench
- Pipe cutter
- Hacksaw
- Pipe Threading Equipment
- Vices
- Taps
- Punch
- Files
- Screwdrivers
- Drill with various sizes of bits
- Portable drill
- Mallet
- Ball pein0 hammer
- Mason chisel
- PPR machine / Heat Fusion equipment
- Pipe bender
- Trowel
- De-clogging wire / de-clogging machine

Supplies and Materials

- Screws
- Adhesives
- Cement
- Sand
- Pipes
- Traps
- Electric cables
- Caulking material
- Fitting

