Australian Government

Department of Education, Employment and Workplace Relations

CPCCSF3001A Apply reinforcement schedule

Release: 1

CPCCSF3001A Apply reinforcement schedule

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to interpret the reinforcement schedule and use it to confirm and locate materials to support construction activities.

It includes planning and preparation for work, reading and interpretation of the schedule, and use of the schedule to confirm materials, locate materials for construction use and provide information to others on site.

Application of the Unit

Application of the unit

This unit supports the attainment of skills and knowledge to interpret and use reinforcement schedule information in a construction project, which includes working with others and as a member of a team.

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units

CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry

Employability Skills Information

Employability skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare.	1.1. Work instructions, including plans, specifications, quality requirements and operational details are obtained from relevant ***information***, confirmed and applied to the scope of work performed. 1.2. Reinforced concrete construction schedule is identified from project schedule. 1.3. Elements of structure are identified from project construction schedule and job drawings. 1.4. ***Safety*** (***OHS***) requirements are followed in accordance with safety plans and policies. 1.5. ***Environmental requirements*** are identified for the project in accordance with environmental plans and ***statutory and legislative authority*** obligations and applied.
2. Read and interpret schedule.	2.1. Structural element to be constructed is confirmed from site and structural detail drawings. 2.2. Reinforcement schedule is read to identify the appropriate reinforcement type for the structural element. 2.3. Number of reinforcement pieces/sheets is identified from structural detail drawings. 2.4. Reinforcement schedule is read to identify coding and number related to labels. 2.5. Discrepancies in coding and numbering are identified and situation is reported to schedule contact for clarification.
3. Check contents of bundles.	3.1. Content of reinforcement material bundles is checked for conformity to schedule and proposed structural element. 3.2. Discrepancies between the schedule and actual material quantities are investigated and resolved or reported. 3.3. Discrepancies between the schedule and actual material shape, size or length are investigated and resolved or reported. 3.4. Cranked or bent items of reinforcement are identified, segregated and reported. 3.5. Schedule is marked where content conforms to schedule and structural element's requirements.
4. Locate reinforcement for element	4.1. Reinforcement is marked or placed and noted ready

ELEMENT	PERFORMANCE CRITERIA
construction.	for transportation to element location. 4.2. Reinforcement is directed to structural location for placement and fixing.
5. Communicate schedule information.	5.1. Job sequencing schedule detail is communicated to steel fixers and team members to ensure efficient work practices. 5.2. Changes to job sequencing schedule are recorded as per site requirements. 5.3. Work completion procedures are identified and relevant personnel notified when finished, as per site requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- communication skills to:
  - communicate job sequencing schedule detail to steel fixers
  - determine requirements
  - follow instructions
  - notify completion of work
  - read and interpret:
    - construction and reinforcement schedule
    - documentation from a variety of sources
    - drawings and specifications
  - report discrepancies and faults
  - use language and concepts appropriate to cultural differences
  - use and interpret non-verbal communication, such as hand signals
  - written skills to record changes to job sequencing schedule detail
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- mathematical and numeracy skills to apply measurements and calculations
- organisational skills, including the ability to plan and set out work
- teamwork skills to work with others to action tasks and relate to people from a

REQUIRED SKILLS AND KNOWLEDGE

range of cultural and ethnic backgrounds and with varying physical and mental abilities

- technological skills to:
  - use a range of mobile technology, such as two-way radio and mobile phones
  - voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

- construction and steelfixing terminology
- construction site traffic control and signage arrangements
- conventional symbols, markings and numbering systems relevant to reinforcement schedules
- job safety analysis (JSA) and safe work method statements
- presentation and contents of reinforcement schedules
- presentation and general content of typical construction schedules
- quality requirements
- reinforcement material types, appearance standards, packaging and labelling arrangements
- workplace and equipment safety requirements.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply of relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures, including quality requirements
- safely and effectively use tools and equipment
- communicate and work effectively and safely with others
- for a minimum of two different sites:
  - confirm the reinforcement material to the schedule
  - direct the location of the reinforcement materials for element construction
  - communicate schedule information and variations to steel fixers.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement

EVIDENCE GUIDE

- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete

EVIDENCE GUIDE

confidence in the person's demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Information includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to the application of reinforcement schedules
- relevant Australian standards
- safe work procedures relating to the application of reinforcement schedules
- signage

RANGE STATEMENT

	• verbal, written and graphical instructions • work bulletins • work schedules, plans and specifications.

Reinforced concrete construction schedule:	• information includes:
	  • grade of steel reinforcing
	  • length of material
	  • location for material, size and shape of bars
	  • number of bars in a bundle
	  • shape of formed bars
	  • size of mesh
	  • surface markings
	  • type of steel bars, cranks and bends
	• structural elements include:
	  • beams
	  • columns
	  • footings
	  • slabs
	  • walls.

Safety (***OHS***) is to be in accordance with state and territory legislation and regulations and project safety plan and may include:	• emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
	• handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight or other issues, such as a disability are a factor
	• hazard control
	• hazardous materials and substances, including cement and curing agents
	• organisational first aid
	• PPE prescribed under legislation, regulations and workplace policies and practices
	• safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
	  • lighting
	  • power equipment
	  • power leads and sources
	  • trip hazards
	  • work site visitors and the public
	  • working in confined spaces

RANGE STATEMENT

	• working in proximity to others • use of firefighting equipment • use of tools and equipment • workplace environmental requirements and safety.
Environmental requirements include:	• clean-up management • dust and noise • waste management.
Statutory and regulatory authorities include:	• federal, state and local authorities administering the applicable Acts, regulations and codes of practice.

Unit Sector(s)

Unit sector Construction

Functional area

Functional area