



Australian Government

Department of Education, Employment and Workplace Relations

LGAWORK406A Supervise concrete works

Release 2

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Modification History

LGAWORK406A Release 2: Layout adjusted.

LGAWORK406A Release 1: Primary release.

Unit Descriptor

This unit covers supervising construction works using concrete. It requires candidates to be able to assess concrete materials in their raw and finished states, identify and evaluate the characteristics of different concrete types, identify defects and impurities in concrete and understand the effect of impurities in concrete. It is appropriate for supervisors of concrete constructions.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the relevant legislation, codes and regulations applicable to council construction works is required. The ability to apply materials knowledge, to source appropriate raw materials and to apply relevant testing methods to raw materials and finished concrete structures must be demonstrated.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

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 required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

| ELEMENT | PERFORMANCE CRITERIA |
|---|--|
| 1 Monitor assessment of construction materials | <ul style="list-style-type: none">1.1 Plastic and hardened concrete properties are identified and recorded in accordance with <i>relevant standards</i>.1.2 Types of hydraulic cement are identified.1.3 Sources of aggregate are identified and listed, and properties of each are identified.1.4 Any impurities in raw materials are identified and documented in accordance with relevant standards and quality assurance standards.1.5 <i>Raw materials</i> used to make concrete and concrete constructions are tested to ensure quality of finished product. |
| 2 Supervise the handling and placement of concrete | <ul style="list-style-type: none">2.1 The effect of site access on the selection and distribution method of concrete is evaluated and documented.2.2 Methods of distribution of concrete are listed and documented in accordance with legislative and organisational requirements.2.3 Correct placement of level slabs, sloping slabs and vertical walls is ensured by monitoring field staff.2.4 Reasons for, and effects of, compaction on plastic and hardened concrete are identified and listed.2.5 Defects in concrete due to incorrect placement are identified and documented accordingly.2.6 Finishing process and surface treatments to slab concrete are monitored and documented.2.7 Accurate <i>curing methods</i> are observed and documented. |
| 3 Identify faults in concrete and repair methods | <ul style="list-style-type: none">3.1 Repair methods for cracked concrete are established.3.2 Causes of concrete faults are identified and documented accordingly.3.3 Field staff members are instructed to repair identified faults in concrete. |
| 4 Maintain accurate records | <ul style="list-style-type: none">4.1 Daily diary of work undertaken and observed is updated and maintained regularly in accordance with relevant standards and organisational requirements.4.2 Directions given to <i>relevant personnel</i> are recorded accurately.4.3 Changes or alterations to scheduled work activities are documented accurately and communicated to relevant personnel. |

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- placing and handling concrete and cement
- construction
- supervisory and leadership skills
- communication
- literacy and numeracy skills
- time management
- priority management
- planning and organising
- contingency management
- reading plans and calculating measurements

Required Knowledge

- interpretation of reports, working drawings and specifications
- nature of materials and effect of performance
- relevant national, state or territory legislation and local government policies and procedures
- OHS requirements relevant to civil construction and operational works
- civil construction requirements
- methods of testing raw materials

Evidence Guide

| | |
|--|---|
| Overview of assessment requirements | A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit must be demonstrated. |
| Critical aspects of evidence to be considered | Comply with occupational health and safety (OHS) regulations applicable to workplace operations. Research, interpret, apply and communicate technical information. |
| Context of assessment | Competency is demonstrated by performance of all stated criteria, with particular attention to the critical aspects of evidence and the knowledge and skills elaborated in the Evidence Guide, and within the scope of the Range Statement. Assessment must take account of the endorsed Assessment Guidelines in the Local Government Training Package. Assessment of the performance requirements in this unit should be undertaken in an actual workplace or simulated environment. Assessment should reinforce the integration of the key competencies for the particular AQF level. Refer to the key competency levels at the end of this unit. |
| Relationship to other units(prerequisite or co-requisite units) | To enable holistic assessment this unit may be assessed with other units that form part of the job role. |
| Method of assessment | The following assessment methods are suggested: <ul style="list-style-type: none">• observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies• written and/or oral questioning to assess knowledge and understanding• completion of workplace documentation• third-party reports from experienced practitioners• completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor |
| Evidence required for demonstration of consistent performance | Evidence should be collected over a set period of time that is sufficient to include an appropriate range and variety of situations. |

Resource implications The learner and trainer should have access to appropriate documentation and resources normally used in the workplace.

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 in the Performance Criteria is detailed below.

- Relevant standards*** may include:
- industry standard specifications
 - council standards
 - relevant Australian standards
 - quality assurance standards
- Identifying concrete properties*** may include:
- admixtures, including air entraining agents, set controlling types and water reducing types
 - testing of mix design, including selected applications using statistics, aggregate grading and first principles
 - recognising principles of reinforced concrete utilising steel, wire and fibres
- Curing methods*** may include:
- impermeable membrane curing
 - continuously wetting concrete
 - accelerated curing
- Methods of testing raw materials and types of concrete*** may include:
- Texas ball mill test
 - California bearing ratio test
 - slump test
 - destructive compression tests
- Relevant personnel*** may include:
- field staff
 - contractors
 - management
 - office or administration staff

Unit Sector(s)

Operational Works