



Australian Government

Department of Education, Employment and Workplace Relations

BCC1013A Monitor machine operations

Release: 1

Modification History

Not applicable.

INTRODUCTION

This learning package is intended for use by those completing the Competency Unit BCC1013A – Monitor Machine Operations as part of Basic Industry Stream Skills within the CIVIL CONSTRUCTION SKILL STREAM of the National Construction Industry Competency Framework.

The theoretical and practical components of this package will help you complete the competency unit. All set tasks, including the activities and demonstrations, will show how the theory or content can be applied in on-site or simulated on-site conditions.

The competency unit Monitor Machine Operations deals with the knowledge and skills required in advising and supporting the machine operator in tasks associated with identifying services and replacing attachments.

Assessment tasks will be developed to meet the elements of the competency and reflect the theoretical components of the learning package.

This learning package will be developed in sections, each section being closely aligned with the

Assessment Tasks.

Your instructor will schedule self-check exercises, practical activities, demonstrations and additional oral and/or written tests, which may be similar to the self-check exercises. These tests will satisfy specific Assessment Criteria in the Assessment Tasks and will apply to your work environment.

When you have achieved all the Assessment Criteria in the Assessment Tasks and your work has been checked and certified by your instructor, you will have successfully completed the elements, which make up the competency unit BCC1013A – Monitor Machine Operations.

HOW TO USE THIS PACKAGE

This package has been designed so that you can work and learn at your own pace, incorporating into your own learning program.

- demonstrations of practical skills by your instructor or experienced tradesperson; planned and supervised practical application of your knowledge and skills; instruction in, and application of, safe working practices; and
- personal progress indicators through self-check exercises and practical activities. It is suggested that you work through the six sections as they are presented.

By all means, fast-track any aspects/areas where you feel confident.

Self-Check Exercises have been included so that you can measure your own progress. These exercises, however, are not part of the formal assessment of competency.

GETTING TO "KNOW THE PACKAGE"

Here is a strategy, which may help you become familiar with the contents of this package.

- Survey** Scan the whole package
- Read the contents page and the introduction, then flip through the pages - glance at the headings.
- Notice that there are set tasks to be completed. The content relates to these tasks
- Ask** Ask about any topics, terms or details that are not clear to you at this stage.
- Read** Read through the material, but do it actively. Jot down points, underline or highlight.
- Link the information with what you know already.
- Let the headings and sub-headings help you organise information.
- Remember that you will need the content to complete the tasks.
- Review** At various stages, you will be directed to review the main points or complete a Self-Check Exercise to indicate how you are progressing.
- Make your own notes as well.
- Instructor** Throughout this package, you will be required to attend practical demonstrations and receive instruction in the use of materials, tools and equipment.
- Ask your instructor if you have any problems with:
- interpretation of content;
 - procedures or processes; or
 - availability of resources

KEY TO SYMBOLS

Symbols are placed in the left-hand margin to draw attention to the type of information commencing at that point.

The symbols used in this package are:

READ	Read	This is the essential information for the module
DEMONSTRATION	Instructor Demonstration	At times, your instructor will give practical advice and demonstrate the use of tool/equipment.
SELF-CHECK	Self-Check Exercise	These are your progress indicators. Typical answers are also included.
PRACTICAL ACTIVITY	Practical Activity	The six activities allow for the application of the theory components
SITE VISIT	Site Visit	Your instructor will schedule visits to appropriate sites, when appropriate.

SUMMARY OF TRAINING SPECIFICATIONS

Unit Number and Title	BCC1013A – Monitor Machine Operations
Pre-requisites	Concurrent assessment and pre-requisite relationship. Basic Industry and Basic Stream Skills unit of competency appropriate to the work orientation.
Elements of Competency	Plan and Prepare Work Support Machine Operator Identify and Protect Services Assist with Fitting and Removing Attachments Clean Up
Delivery	Delivery methods must provide for the demonstration of competence in skills specified in all learning outcomes, either in on-site or simulated on-site conditions.
Resource Implications	i. For this training to occur there needs to be availability and access to the following resources: Materials relative to process; Tools, plant and equipment; Suitable workplace location/simulated workplace environment Appropriate communication of documentation relative to the tasks. ii. Desired training qualifications and training required for those involved in the instructional process are: a. Possess competency and knowledge relevant to the competency standard at a level equivalent to or higher than the competency under assessment; b. Possess a level of specific and relevant quality industry experience in order relate competency to current industry practice; c. Provide evidence of having successfully completed or being assessed competent in a relevant course of instructional skills; or d. Provide formal evidence of successfully completing the requirements of an established process for Recognition of Prior Learning (RPL) or Recognition or Current Competencies (RCC) equivalent to the required competencies and knowledge of instructional skills.

TRAINING SPECIFICATIONS

Unit Number and Title	BCC1013A – Monitor Machine Operations
Element of Competency	Performance Criteria
Plan and Prepare Work	OH&S requirements adhered to; Quality Assurance requirements recognised and adhered to; Personal protective equipment selected, correctly fitted and used; Tools and equipment selected in accordance with specified task.
Support Machine Operator	Pegs and levels checked and machine operator advised of compliance with job requirements; Operator advised of proximity of services; Operator notified of unsafe conditions or potential damage to property; Trucks directed to required location for loading; Excavation jobs finished to specifications by hand; Direction provided in assisting machine operator with spreading materials to specified levels; Direction provided in assisting machine operator with consolidation of materials in layers; Delivered/relocated materials directed to correct location; Damage to access roads reported.
Identify and Protect Services	Services identified and located from plan; Service markers checked during machine operation and operator advised of location to prevent damage; Exposed services marked and barriers erected to prevent damage where necessary.
Assist with Fitting and Removing Attachments	Existing attachment removed according to manufacturer's manual/regulatory authorities instructions; Required attachment fitted according to manufacturer's/regulatory authorities instructions; Attachment tested to ensure correct fitting and operation as specified in manufacturer's manual; Removed attachment cleaned and stored in

appropriate storage area.

Clean Up

Tools and equipment cleaned, maintained and store.

Key Competencies

Level 1

Collecting, analysing and organising ideas & information

Communicating ideas and information

Planning and organising activities

Working with others and in teams

Solving problems

Using mathematical ideas and techniques

Using technology

ASSESSMENT SPECIFICATION

Unit Number and Title	BCC1013A – Monitor Machine Operations
Guidelines for the Assessor	This is a supervised assessment requiring observation of the process with individual final assessment tasks. Forms of assessment to be considered by the assessor are as follows: - Written/oral tests; - Observation; - Demonstrations; - Practical tasks and/or projects. Assessment may also be demonstrated through other forms of assessment not included in the above methodology including: - Simulation of real-life work activity - Individual projects - Portfolio - Recognition of Prior Learning/Recognition of Current competencies
Method and Context of Assessment	Competence should be assessed under guidance checking at various stages of the process and at the completion of task/activity against the elements and performance criteria specified in the standard. Competency may be assessed in the workplace or simulated workplace setting.
Human Resource Implications	i. Desired assessor qualifications and training required to assess would be as follows a) Possess competency and knowledge relevant to the competency standard at a level equivalent to or higher than the competency under assessment; b) Having completed a course in instruction for registration as an assessor with CTA or be accredited as a Registered Training Organisation (RTO) for assessor services; c) Possess a level of specific and relevant quantity industry experience in order to relate competency to current industry practice. ii. Training qualifications required: a) Possess competency and knowledge relevant to the competency standard at a level equivalent to or higher than the competency to be achieved. b) Having completed a course or being assessed competent in a course of instructional/assessment skills. c) Possess a level of specific and relevant quality industry experience in order to relate competency to current industry practice.

Physical Resource Implications	The following resources should be made available: General construction materials relative to the civil construction process Hand tools, plant and equipment appropriate to monitoring of machine operations Suitable work area appropriate to the civil construction process Suitable plans/drawings and specifications OH&S requirements appropriate to monitoring machine operations.
Range of Variables	Range of machine operator support provided includes: Communicating peg location and levels Excavation, backfilling, spreading and compacting materials Locating/spotting of materials Identifying and protecting services Assisting with attaching and removing attachments Communications methods may include: - Hand signals - Verbal - Two way radio
Evidence Guide	Competency is to be demonstrated by the safe and efficient support provided in monitoring machine operations in any of those tasks listed within the range statement. Critical Aspects and Evidence It is essential that competence is observed in the following aspects: Compliance with Occupational Health and Safety regulations and State legislation applicable to work place operations. Compliance with organisational policies and procedures including Quality Assurance requirements. Correct procedures carried out prior to and during the application of machine monitoring. Effective communication relative to safe and efficient monitoring machine operations. Pre-requisite Relationship of Units Nil Underpinning Knowledge and Skills Knowledge A knowledge of:

Workplace and equipment safety requirements

Hand tools and equipment

Materials

Manual handling

Measurement and calculations

Verbal/non-verbal communication techniques

Leveling

A range of machine attachments

Skills

The ability to:

Work safely to instructions

Use hand tools

Handle material

Select material

Measure

Use two-way communication systems

Fit and remove attachments

Apply Quality Assurance

Communicate effectively

INTEGRATED PROJECT-BASED TRAINING

It should be noted that all training in this program is project-based. The training must integrate all competencies including the use of tools and equipment. The knowledge and skills you gained in this program regarding good communication, quality concepts and OH&S must be practiced again in all competencies.

CHECK LIST FOR ASSESSMENT RESOURCES

Title	Identifies the title of the learning resource that related to the standard being assessed.
Unit (s) of Competence	Identifies conditions under which assessment can be conducted based on information from 'range of variables statements' and 'evidence guides' in competency standards.
Instructions for Assessors	Informs the assessor about the scope of the assessment resource ie. the assessment methods to be used and the conditions of assessment as well as the procedure to follow in preparing, conducting and reviewing the assessment.
Direct Observation Checklist	Checklist for outcomes of observations of performance and other forms of evidence eg. Responses to questions, related directly to 'performance criteria' and 'evidence guides' in competency standards. (Refer assessment specification in Learning Materials for each competency standard.)
Other Evidence Gathering Methods	Instructions for assessors on methods of gathering indirect and supplementary forms of evidence. This may include assessor guidelines and/or outlines of assessment tasks for: Products or services produced by assessee; Third party reports; Individual/group projects; Written tests; Portfolios; Structured oral questioning; and Test banks.
Record of Assessment Outcomes	Identifies way in which outcomes of different evidence gathering techniques, incorporated in assessment resource, are recorded.
Reference	Identifies reference material required to support specific evidence

Documentation gathering techniques. This may include:

Organisational policies and procedures;

Manufacturer's instructions;

Safety regulations;

Product information; and

Legislation.

Assessor Note: Assessors may find it useful in creating a checklist to refer t the non-endorsable learning resource materials access list for the appropriate learning resource packages.

CONCLUSION

This learning package has combined the theoretical and practical components required for the competency unit BCC1013A – Monitor Machine Operations.

Having successfully completed the requirements of this competency unit you now understand the procedures for advising and supporting the machine operator in tasks associated with identifying services and replacing attachments.

You can expect to apply your knowledge and skills again and again on a range of construction sites. The developers of this package hope that you have found its style and presentation easy to use.

RECORD OF COMPETENCY

COMPETENCY BCC1013A - PREPARE CONSTRUCTION TRAFFIC

TRAINEE DETAILS

TRAINEE NAME

ADDRESS

DATE COMMENCED

REGISTRATION NO

EMPLOYER

ADDRESS

TRAINEE SIGNATURE:

DATE:

ON THE JOB ASSESSMENT SHEETS

Instructions for Completing Assessment Sheets

These Assessment Sheets help the assessment of competence against the nationally endorsed construction industry standards.

The Assessment Conditions explain the level of skill and responsibility required in performance and also the range of work to be included in the task being assessed.

The level of skill and responsibility of performance includes: Work undertaken in a team situation:

Application of knowledge in the performance of this task, while working under routine supervision assisting team members.

Work undertaken with limited supervision only:

Application of in-depth knowledge in the performance of this task, while working under limited supervision.

The Performance Criteria will help you make a valid, fair and reliable assessment of competency on- the-job.

The Assessment Sheets should be completed in consultation with employers and other staff involved in this training. Assessments should be done on a progressive basis.

As you make your self assessments the following questions apply:

1. Have the necessary technical knowledge and skills for the task being assessed;
2. Perform the related tasks in accordance with the Assessment Conditions and the Performance Criteria; and
3. Apply their knowledge and skills for this competency in a number of different job situations.

UNIT OF COMPETENCY

UNIT BCC1013A - MONITOR MACHINE OPERATIONS

The trainee consistently performs as follows:

YES/NO	Plan and Prepare Work
YES/NO	Support Machine Operator
YES/NO	Identify and Protect Services
YES/NO	Assist with Fitting and Removing Machine Attachments
YES/NO	Clean Up

CERTIFICATION - BCC10131A - MONITOR MACHINE OPERATIONS

The Trainee has achieved competence in BCC1013A

RTO:

Signature:

Date:

AMENDMENT RECORD

The following table is designed to register officially endorsed amendments to this resource package document.

Accurate record keeping of such amendments enhances the currency of materials contained in resource package that form the total qualification or competency standard.

AMENDMENT RECORD SHEET

AMENDMENT NUMBER	AMENDMENT PAGE NO	DATE OF AMENDMENT	AMENDMENT BY WHOM	COMMENT
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