AUSTRALIAN NATIONAL TRAINING AUTHORITY

Extractive Industries Training Package – MNQ98

Certificate II in Extractive Industries (Operator)	MNQ20198
Certificate III in Extractive Industries (Operator)	MNQ30198
Certificate IV in Extractive Industries Operations	MNQ40198
Diploma of Extractive Industries Management	MNQ50198
Advanced Diploma of Extractive Industries Management	MNQ60198

National Mining ITAB

National Mining Industry Training Advisory Body
PO Box A2616
Sydney South, NSW 2000
Ph (02) 9286 1433 Fx (02) 9264 9367
Email: mitab@nswmin.com.au

Copyright

© Australian National Training Authority (ANTA), 2000
Level 11, AMP Place
10 Eagle Street
BRISBANE QLD 4000
Phone: (07) 3246 2300
Fax: (07) 3246 2490

All rights reserved. This work has been produced initially with the assistance of funding provided by the Commonwealth Government through ANTA. This work is copyright, but permission is given to teachers, trainers and assessors to make copies by photocopying or other duplicating processes for use within their own training organisation or in a workplace where the training is being conducted. This permission does not extend to the making of copies for use outside the immediate training environment for which they are made, nor the making of copies for hire or resale to third parties. For permission outside of these guidelines, apply in writing to Australian National Training Authority.

This work is the result of wide consultations with many industry participants throughout Australia. Consequently it is a collaborative view not necessarily representing any specific body and no single body warrants its content or accepts any liability.

Published by:

Australian Training Products Ltd
Level 25 / 150 Lonsdale St, Melbourne , 3000
PO Box 12211 A'Beckett St Post Ofice
Melbourne, Victoria 8006, Australia
Telephone +61 3 9655 0600
Facsimile +61 3 9639 4684
E-mail: sales@atpl.net.au

First published November 1998

Stockcode: 5301001STD

Printed for Australian Training Products Ltd by Ausdoc Ondemand, Melbourne, Victoria, Australia

Print Version No: 1.01

December 2000

Foreword

The Extractive Industries Training Package provides the key to issuing nationally recognised qualifications that reflect and respond to our industry's need for a flexible, highly skilled workforce. Drawing on the experience and expertise of people from many of the enterprises already implementing competency-based training and assessment effectively in all states, they present a quality framework which all can apply efficiently and consistently.

For people at all levels in the industry, the Training Package detailed provides an opportunity to gain formal recognition for current competencies and prior learning. The career benefits and personal satisfaction of having qualifications are now available to people who already prove their knowledge and skills on the job as a matter of routine.

Flexibility is a feature of the system. Formal qualifications are now accessible through a range of pathways: traditional formal courses provided by training organisations, and the acquisition of skills and knowledge in the workplace. Candidates for assessment can move between the two optional pathways, building on their recognised competencies at their own pace, in the learning and assessment environment that suits them best.

I encourage you to apply the Training Package in your own workplace.

Danny Duke

Chair, Extractive Industries Task Group

TABLE OF CONTENTS

1 INTRODUCTION 1

Role of the Extractive Industries Training Package 1
Characteristics of the Extractive Industries 2
New Apprenticeships 3
Structure of the Extractive Industries Training Package 3
Endorsed Components 3
Support Material Components 4
Methodology 4
Steering Committee 4
Framework for the development of the Training Package 5
Consultation Process 5
Outcomes 6

2 EXTRACTIVE INDUSTRIES COMPETENCY STANDARDS 7

Introduction 7
Review against Best Practice Guidelines 7
Enhancement to meet Training Package requirements 8
Imported Units of Competency 8

3 QUALIFICATIONS IN THE EXTRACTIVE INDUSTRIES 9

Qualification Titles 9
Qualification levels and industry position levels 9
New Apprenticeships 10
Customisation of Qualifications 10
Mapping with other industry Standards 10
Qualifications in the Extractive Industries 12

4 EXTRACTIVE INDUSTRIES ASSESSMENT GUIDELINES 17

Introduction 17
The Mining Industry Assessment System 19
Overview 19
Benefits 19
Competency and AQF qualifications 22
Extractive Industries Units of Competency and AQF levels 22
Extractive Industries pathways to a qualification 23
Training and assessment pathway 24
Assessment only pathway 25
Registered Training Organisation providing assessment only services suggested function and quality assurance 27

Partnerships and flexible arrangements — blending pathways 28
Assessor qualifications 30
Assessment arrangements 31
Guidelines for Designing Assessment Materials 31
Determining appropriate assessment methods and tools 31
Methods and tools — glossary 32
Note: Oral questions can also be used in conjunction with skill demonstration and observation. 34
Guidelines for Conducting Assessments 35
Conducting assessments 35
Recognition of Prior Learning (RPL) and Recognition of Current Competencies (RCC) 36
Combined approaches and holistic assessment 38
Minimising the cost of assessment in the workplace 38
ASSESSORS' CHECKLIST 39
In planning the assessment have you: 39
In conducting the assessment have you: 39
In finalising the assessment have you: 39
USEFUL CONTACTS 40
National Mining ITAB 40
The Institute of Quarrying 40
New South Wales 40
Queensland 40
Western Australia 40
Tasmania 40
Victoria 40
Northern Territory 40
RELATED REFERENCES, RESOURCES AND MATERIALS 41
Guidance for Management of the Training Function 41
Training Delivery/Facilitation Skills and Approaches to Workplace Training 41
Design of Training Resource Material 41
Assessment of Competencies and Recognition of Prior Learning 42
Assessment of Competencies and Recognition of Prior Learning cont 42
Resources 43
GLOSSARY OF TERMS 45

1 INTRODUCTION

Role of the Extractive Industries Training Package

The Extractive Industries Training Package provides national procedures and guidance to underpin training and assessment in the Extractive Industries. In an industry where there was no formal training at operator level, the Training Package provides a range of options and varied learning pathways for the recognition of skills within all levels of the industry. This includes:

- trainees
- apprentices
- cadets
- current employees seeking a qualification
- current employees seeking a promotion
- current employees seeking a sense of achievement

Wide consultation was undertaken to ensure the Training Package meets the needs of all clients: large, medium and small employers, employees at all levels, and those wishing to enter the industry. The input from the industry allowed the Training Package to build on existing practices and structures to provide a flexible approach to training and assessment. This approach encourages partnerships between enterprises and Registered Training Organisations (RTOs) to facilitate the recognition of employee skills.

In the past, recognition of employee skills was only available for statutory positions and the large number of employees at operator level were not catered for. The Training Package provides qualifications for employees at all levels from operator to senior specialist manager. Employee skills may be recognised no matter how or where they were acquired.

The flexible but rigorous approach to the achievement of competencies links work and learning. This encourages employers to see the investment they can gain from training through the assessment and application of skills and knowledge in the workplace.

Characteristics of the Extractive Industries

Quarrying operations covered by the Extractive Industries are carried out in all State and Territories of Australia and contribute $3-4 billion to the Australian economy. Enterprises within the Extractive Industries are primarily oriented towards domestic consumption. The major impact on this sector of the Mining Industry is the demand for materials from the Building and Construction Industry.

A wide range of enterprises exists within the Extractive Industries. There are a number of large international organisations that control most of the quarries near metropolitan areas. In these enterprises, quarrying forms part of their business operations. Smaller organisations that specialise in specific quarry products often work side by side or in competition with the large enterprises. Very small organisations with predominantly one quarry tend to serve a particular shire or council or provide materials directly to a road building company. Although most quarries are located within 30 kilometres of a major centre, there is a wide dispersion of quarries throughout the country.

There are approximately 15,000 persons employed in the Extractive Industries with slightly more than 30% employed by the four (4) major organisations with more than 100 employees. Most of the remainder are employed in the small organisations with 2 - 10 employees. Employees within the industry cover a range of tasks with most employed as operators in fixed plant, mobile plant and load haul operations, as supervisors and as managers. Only approximately 10% of those employed hold formal a qualification and most those who do are trades persons.

Restructuring within the industry continues thorough capital investment, development of work organisation methods and development of a workplace culture with a distinct enterprise focus. These factors have influenced the range of skills and knowledge required by employees in the industry. The training and assessment required by the industry has to go beyond the traditional approach with recognition of the competencies of the existing workforce becoming increasingly important. There is also an emphasis on consistency and quality, with a requirement to align all training and assessment outcomes in terms of quality, productivity, performance and greater skill flexibility.

New Apprenticeships

In the past, there have been no apprenticeships and traineeships for employees within the Extractive Industries. The identification of New Apprenticeships at five levels within the industry provides a career path for employees. This will encourage new entrants to the industry to assist in overcoming the skill shortage as older employees leave.

There will be a progressive uptake of the new qualifications as opportunities are marketed to and recognised by school leavers. Industry will actively recruit young people to the industry as they become aware of the advantages associated with New Apprenticeships.

In the qualifications identified as New Apprenticeships, flexibility has been included to meet the needs of employers and employees. There is flexibility in:

- the range of electives available in each qualification to meet site specific and individual requirements
- the approaches to delivery of training and assessment.

Flexible delivery strategies are proposed to support those employees in rural and isolated situations and ensure they are not disadvantaged.

Structure of the Extractive Industries Training Package

The Extractive Industries Training Package consists of three endorsed components and three non-endorsed components.

Endorsed Components

Competency Standards

These were endorsed in September 1996 and have been revised against Best Practice and enhanced in the Training Package development.

Qualifications

The Competency Standards have been packaged in flexible ways to achieve qualifications under the Australian Qualifications Framework (AQF).

Assessment Guidelines

These have been developed to provide procedures and guidance in using the Competency Standards as the benchmark for assessment.

Support Material Components

The support material components are linked to and support the endorsed components.

Learning Strategies

A flexible approach to delivery has been provided in the development of teaching/learning materials to support the achievement of Units of Competency. The learning strategies and teaching materials are available for each Unit of Competency. They support face to face instruction as well as flexible delivery techniques, including distance education and self paced learning.

Assessment Materials

Assessment materials have been developed in conjunction with the learning strategies. The materials use the Units of Competency as the benchmark for assessment and provide for competency recognition and the award of qualifications.

Professional Development Materials

These provide guidance for trainers and assessors in Registered Training Organisations to undertake the new roles in facilitating, supporting and validating skill development though flexible approaches to training delivery and assessment. This relates particularly to the formation of partnerships with enterprises to meet the industry requirement for assessment in the workplace or a simulated situation.

Methodology

Steering Committee

The National Mining Industry Training Advisory Body (ITAB) established a Steering Committee comprising representatives from:

- large and small quarry enterprises
- contractors
- equipment suppliers
- Institute of Quarrying Australia
- Crushed Stone Association
- training providers
- Inspectors of Mines
- unions
- Department of Education and Training NSW

- Australian National Training Authority (ANTA).

Framework for the development of the Training Package

A series of documents developed by ANTA underpinned the development of the Extractive Industries Training Package. These included:

- Best Practice Manual for Competency Standards Development
- Guidelines for Training Package Developers
- Australian Qualifications Framework (AQF)
- Assessment Guidelines
- Australian Recognition Framework (ARF).

Consultation Process

There was extensive national consultation throughout the Extractive Industries for the development of the Training Package. This included briefing sessions, postal consultation with feedback sheets and validation of revised documents by key industry stakeholders.

Briefing sessions were held with:

- State/Territory ITABs
- State/Territory ITAB Regional Network Meetings
- special Focus Groups in each State/Territory comprising representatives from quarry enterprises, contractor and, equipment suppliers
- Institute of Quarrying through the Quarry Sector Task Group
- individual enterprises and training providers
- Statutory Authorities – Victoria, New South Wales, Queensland
- Inspectors of Mines – Victoria, New South Wales, Queensland.

To assist the industry in understanding the role and structure of the Extractive Industries Training Package papers were also presented at state and national conferences including the Institute of Quarrying 41st Annual Conference (250 delegates) and the Queensland Mining Skills Expo (150 delegates).

The final draft of the Training Package was discussed at meetings with State/Territory Training/Recognition Authorities in Queensland, New South Wales, Victoria, Western Australia, Tasmania and Northern Territory to ensure it met ARF and State/Territory Training Authority requirements.

Outcomes

A key feature of the Training Package is the flexibility to accommodate the nature of the workforce and work requirements. Flexibility is provided through:

- entry to qualifications at a number of levels
- the range of electives in each qualification to provide choices for career path development as well as specialisation to meet enterprise and individual needs
- emphasis on the recognition of prior learning (RPL) and/or recognition of current competencies (RCC) to recognise skills of the existing workforce
- the establishment of qualifications at operator level to provide career path options
- options to customise competency outcomes for industry sector and site requirements
- the provision of learning strategies and assessment materials to support flexible delivery.

2 EXTRACTIVE INDUSTRIES COMPETENCY STANDARDS

Introduction

The Extractive Industries Competency Standards – Operator and Management were developed by the Extractive Industries in early 1996 and endorsed in September 1996. Extensive consultation was undertaken throughout Australian states and territories to ensure the Competency Standards met industry requirements.

Review against Best Practice Guidelines

In early 1997 the Extractive Industries Competency Standards were reviewed against the Standards Best Practice Manual and National Competency Standards – Policy and Guidelines. A report of this review was submitted to ANTA in May 1997. The review covered the quality of the content, technical aspects and process of development to ensure that the outcomes and general applicability in the workplace met industry requirements. Again, wide consultation was undertaken with individual enterprises, industry associations and relevant bodies including:

- Institute of Quarrying Australia – all branches in each State/Territory
- Crushed Stone and Sand Producers Association – all branches in each State/Territory
- Chief Inspectors of Mines Committee
- Statutory Authorities – Victoria and NSW
- Quarry Sectorial Standing Committee (now Extractive Industries Task Group)
- Quarry Sectorial Standing Committee Sub Committees.

The review confirmed:

- the specification of and application of the knowledge and skills was to the level of performance required in the workplace
- the Competency Standards covered the range of functions that are meaningful to the workplace
- the Competency Standards provided a basis for skill formation now and in the future
- the technical quality met the requirements of Best Practice
- the Competency Standards were sufficiently clear and detailed to allow unambiguous and consistent interpretation of industry requirements for training and assessment including assessment at job or in a simulated situation
- the Competency Standards could be customised, within industry guidelines, to meet specific enterprise needs
- there was clear indication of the interdependence of Units of Competency
- there was a clear indication the relationship between each Unit of Competency and the Key Competencies.

Enhancement to meet Training Package requirements

To meet Training Package requirements, some slight modifications were made to the names, descriptions and ordering of the Competency Standards. The minor amendments included:

- the addition of screening to the tile and description of Unit MNQ.OP/08.A
- changing the title of Unit MNQ.OP/12.A to refer to 'Fixed Plant' and the title of Unit MNQ.OP/28.A to refer to 'Mobile Plant' to meet site operational requirements
- moving Unit MNQ.OP/20.A from Quarry Manager to Supervisor level
- adding Unit MNQ.QM/20.A 'Conduct Sales in an Extractive Operation' as a new Unit of Competency at Quarry Manager level
- changing the order of Units MNQ.OP/05.A, MNQ.QM/05.A, and MNQ.TL/05.A and MNQ.SM/07.A, MNQ.QM/07.A, and MNQ.TL/07.A to provide greater coherence when reading the Units of Competency.

These changes were validated with key stakeholders identified in the Best Practice review.

The Extractive Industries Competency Standards are available as a separate document.

Imported Units of Competency

To reflect and meet the needs of the Extractive Industry, imported units of competency would typically be found in the following endorsed Training Packages/Competency Standards developed by:

- National Assessor and Workplace Trainer Body (Business Services Training Australia)
- Construction Training Australia
- Transport & Distribution Training Australia (Rail, Road & Marine)
- Frontline Management – available from Business Services Training Australia.

3 QUALIFICATIONS IN THE EXTRACTIVE INDUSTRIES

Qualification Titles

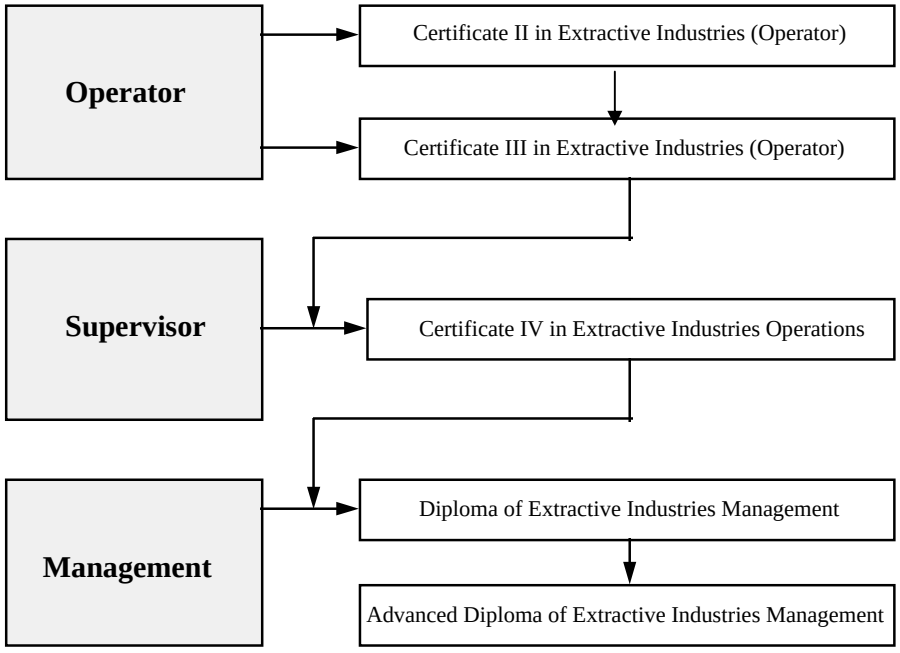
The following are the titles of the qualifications recognised in the Extractive Industries:

- Certificate II in Extractive Industries (Operator) MNQ20198
- Certificate III in Extractive Industries (Operator) MNQ30198
- Certificate IV in Extractive Industries Operations MNQ40198
- Diploma of Extractive Industries Management MNQ50198
- Advanced Diploma of Extractive Industries Management MNQ60198

Qualification levels and industry position levels

Employees in positions at operator level in the industry can access qualifications at either AQF Certificate II level or AQF Certificate III level. The AQF Certificate IV encompasses the competencies expected of supervisors, team leaders and site coordinators. An AQF Diploma is the entry point for management training, and the achievement of further competencies can lead to an Advanced Diploma. These are shown in Figure 1.

FIGURE 1 *QUALIFICATIONS AND INDUSTRY POSITIONS*



New Apprenticeships

New Apprenticeships (offered as Traineeships or Cadetships) will be possible under the Extractive Industries Training Package for entry level and existing employees in the following qualifications:

- Certificate II in Extractive Industries (Operator)
- Certificate III in Extractive Industries (Operator)
- Certificate IV in Extractive Industries Operations
- Diploma of Extractive Industries Management
- Advanced Diploma of Extractive Industries Management

Customisation of Qualifications

The flexibility available in choice of Elective Units, in the following levels of qualification allows for the customisation of those qualifications to meet the needs of individuals and employers, while retaining a minimum of essential Core Units:

- Certificate II in Extractive Industries (Operator)
- Certificate III in Extractive Industries (Operator)
- Certificate IV in Extractive Industries Operations
- Diploma of Extractive Industries Management
- Advanced Diploma of Extractive Industries Management

Individual Units of Competency selected as elective units for a qualification may be used or customised as shown in Table 1.

Specific criteria exist for individuals who are seeking a qualification to meet the requirements of a Statutory Licence to practice as a Mine/Quarry Manager or Shotfirer. Individuals and/or enterprises should check the relevant Act and legislative requirements in their State/Territory when selecting competencies.

Mapping with other industry Standards

To further assist meeting the skilling requirements of quarry personnel, the Extractive Industry has identified other endorsed national competency standards that are relevant to the quarry workplace, these may include:

(a) National Assessors and Workplace Trainers
(b) Frontline Management – Business Services Training Australia
(c) Building and Construction
(d) Transport & Distribution: Road, Rail and Marine Transport
(e) Manufacturing Learning Australia (Manufactured Minerals Training Package).

TABLE 1 *CUSTOMISING OF UNITS AND QUALIFICATIONS*

USING THE STANDARDS	SUGGESTIONS	PRECAUTIONS
Using outcomes from the Extractive Industries Competency Standards	Retain and if appropriate, extend or build on the competency outcomes.	Don't diminish or lessen the level of performance specified in the Competency Standards.
Adding Units of Competency	Additional Units of Competency may be developed to meet the specific needs of the enterprise.	The qualification must reflect the Units of Competency specified by the industry. Additional Units will require ANTA endorsement before they can be accepted as part of a qualification.
Customising Extractive Industries Competency Standards	The Units of Competency may be customised provided the competency outcomes are retained.	Don't diminish or lessen the level of performance specified in the Competency Standards.
Using workplace assessment processes.	Ensure assessors have the qualifications outlined in this Training Package and ensure the integrity of the processes to achieve validity, reliability, fairness and flexibility.	Don't devalue the quality of the assessment outcomes by using inadequate processes and procedures.
Selecting individual Units of Competency.	This is accepted and the successful competency outcomes of the assessment will enable the participant to be granted a Statement of Attainment. The AQF qualification is issued on completion of the endorsed package of Units of Competency.	Specific criteria exist for individuals who are seeking a qualification to meet the requirements of a Statutory Licence to practice as a Mine/Quarry Manager or Shotfirer. Individuals and/or enterprises should check the relevant Act and legislative requirements in their State/Territory when selecting competencies.

Qualifications in the Extractive Industries

The following table describes the packaging of Extractive Industries Units of Competency required for the various levels of qualification within the Extractive Industries Training Package.

TABLE 2 *PACKAGING OF EXTRACTIVE INDUSTRIES UNITS OF COMPETENCY*

QUALIFICATION	UNITS OF COMPETENCY
AQF Certificate II	**All of the following Extractive Industries Competency Standards Units**: MNQ.OP/01.A, MNQ.OP/02.A, MNQ.OP/04.A and MNQ.OP/05.A Plus 7 elective units from the following Extractive Industries Competency Standards Units: MNQ.OP/03.A, MNQ.OP/08.A, MNQ.OP/09.A, MNQ.OP/10.A, MNQ.OP/11.A, MNQ.OP/12.A, MNQ.OP/13.A, MNQ.OP/14.A, MNQ.OP/15.A, MNQ.OP/16,A, MNQ.OP/17.A, MNQ.OP/18.A, MNQ.OP/19.A, MNQ.OP/20.A, MNQ.OP/21.A, MNQ.OP/22.A, MNQ.OP/23.A, MNQ.OP/24.A, MNQ.OP/25.A, MNQ.OP/26.A, MNQ.OP/27.A, MNQ.OP/28.A, MNQ.OP/29.A, MNQ.OP/30.A, MNQ.OP/31.A or MNQ.OP/32.A.
AQF Certificate III	**All of the following Extractive Industries Competency Standards Units**: MNQ.OP/01.A , MNQ.OP/02.A, MNQ.OP/03.A, MNQ.OP/04.A and MNQ.OP/05.A; **Plus 17 elective units**, to include: • **At least11 elective** units from the following Extractive Industries Competency Standards Units: MNQ.OP/12.A, MNQ.OP/13.A, MNQ.OP/17.A, MNQ.OP/18.A, MNQ.OP/19.A, MNQ.OP/20.A, MNQ.OP/21.A, MNQ.OP/22.A, MNQ.OP/24.A, MNQ.OP/25.A, MNQ.OP/27.A, MNQ.OP/28.A, MNQ.OP/30.A, MNQ.OP/31.A or MNQ.OP/32.A; **including** up to five (5) substitute AQF 3 (or higher) units imported from other relevant endorsed Training Packages. ***See list on page 14***. • **Plus 6 elective units** from either of the following Extractive Industries Competency Standards Units: MNQ.OP/08.A, MNQ.OP/09.A, MNQ.OP/10.A, MNQ.OP/11.A, MNQ.OP/14.A, MNQ.OP/15.A, MNQ.OP/16.A, MNQ.OP/23.A, MNQ.OP/26.A, MNQ.OP/29.A, including up to three (3) substitute AQF 2 (or higher) units imported from other relevant endorsed Training Packages or endorsed enterprise units. **These imported units do not duplicate existing extractive units or reduce the number of extractive units required for a qualification**.

QUALIFICATION	UNITS OF COMPETENCY
AQF Certificate IV	All of the following Extractive Industries Competency Standards Units: MNQ.TL/01.A, MNQ.TL/02.A, MNQ.TL/06.A and MNQ.TL/09.A; Plus 4 elective units from the following Extractive Industries Competency Standards Units: MNQ.TL/05.A, MNQ.TL/07.A, MNQ.TL/08.A, MNQ.TL/10.A, MNQ.TL/20.A,or MNQ.OP/32.A.
AQF Diploma	All of the following Extractive Industries Competency Standards Units: MNQ.TL/01.A, MNQ.TL/02.A, MNQ.QM/01.A, MNQ.QM/02.A, MNQ.QM/05.A, MNQ.QM/06.A, MNQ.QM/09.A, MNQ.QM/14.A and MNQ.QM/16.A; Plus 10 elective units from the following Extractive Industries Competency Standards Units: MNQ.TL/32.A, MNQ.QM/07.A, MNQ.QM/08.A, MNQ.QM/010.A, MNQ.QM/11.A, MNQ.QM/12.A, MNQ.QM/13.A, MNQ.QM/15.A, MNQ.QM/17.A, MNQ.QM/18.A, MNQ.QM/19.A or MNQ.QM/20.A.
AQF Advanced Diploma	Diploma (as described immediately above); Plus 8 elective units from the following Extractive Industries Competency Standards Units: MNQ.SM/01.A, MNQ.SM/02.A, MNQ.SM/03.A, MNQ.SM/04.A, MNQ.SM/05.A, MNQ.SM/06.A, MNQ.SM/07.A, MNQ.SM/08.A, MNQ.SM/09.A or MNQ.SM/10.A.

Note: Table 3 lists the Extractive Industries Competencies Standards referred to above.

TABLE 3 *EXTRACTIVE INDUSTRIES COMPETENCY STANDARDS*

Extractive Industries Training Package – Qualification Requirements						
Certificate II and III in Extractive Industries (Operator)		**Core (C) or Elective (E)**				
Unit No.	**TITLE**	**II**	**III**	**IV**	**V**	**VI**
MNQ.OP/01.A	Work safely	C	C			
MNQ.OP/02.A	Work cooperatively with others	C	C			
MNQ.OP/03.A	Solve operational problems	E	C			
MNQ.OP/04.A	Plan and organise individual work	C	C			
MNQ.OP/05.A	Contribute to quality system	C	C			
MNQ.OP/08.A	Carry out crushing and screening plant operations	E	E			
MNQ.OP/09.A	Carry out blending plant operations	E	E			
MNQ.OP/10.A	Carry out sand plant operations	E	E			
MNQ.OP/11.A	Dewater operational areas	E	E			
MNQ.OP/12.A	Conduct Minor Repairs and Carry Out Basic Servicing – Fixed Plant	E	E			
MNQ.OP/13.A	Stockpile, load and dispatch product	E	E			
MNQ.OP/14.A	Treat and dispose of rejects and tailings	E	E			
MNQ.OP/15.A	Operate programmable logic control (PLC) systems	E	E			
MNQ.OP/16.A	Conduct sampling operations	E	E			
MNQ.OP/17.A	Conduct laboratory operations	E	E			
MNQ.OP/18.A	Conduct weighbridge operations	E	E			
MNQ.OP/19.A	Conduct dredging operations	E	E			
MNQ.OP/20.A	Conduct grader operations	E	E			
MNQ.OP/21.A	Conduct front end loader operations	E	E			
MNQ.OP/22.A	Conduct shovel/excavator operations	E	E			
MNQ.OP/23.A	Conduct haul truck operations	E	E			
MNQ.OP/24.A	Conduct dozer operations	E	E			
MNQ.OP/25.A	Conduct scraper operations	E	E			
MNQ.OP/26.A	Operate medium vehicles	E	E			
MNQ.OP/27.A	Operate miscellaneous quarry support equipment	E	E			
MNQ.OP/28.A	Conduct Minor Repairs and Carry Out Basic Servicing – Mobile Plant	E	E			
MNQ.OP/29.A	Fit and maintain tyres and wheels	E	E			
MNQ.OP/30.A	Carry out blast survey	E	E			
MNQ.OP/31.A	Conduct drilling operations	E	E			
MNQ.OP/32.A	Carry out shot firing	E	E	E	E	
	Certificate IV in Extractive Industries Operations **Management Competencies – Team Leader**					
MNQ.TL/01.A	Implement, monitor, rectify and report statutory/legal compliance			C	C	C
MNQ.TL/02.A	Implement, monitor and report on the risk management processes, associated with occupational health and safety and the environment			C	C	C
MNQ.TL/05.A	Implement pit development, monitor and report			E		
MNQ.TL/06.A	Lead and monitor quarry operations and report outcomes			C		
MNQ.TL/07.A	Implement and monitor operational performance management system			E		
MNQ.TL/08.A	Implement and monitor quality system			E		
MNQ.TL/09.A	Participate in, lead and facilitate work teams			C		
MNQ.TL/10.A	Implement and monitor continuous improvement systems and processes			E		
MNQ.TL/20.A	Manage Quality Customer Service			E		

TABLE 3 *EXTRACTIVE INDUSTRIES COMPETENCY STANDARDS (CONTINUED)*

Extractive Industries Training Package – Qualification Requirements						
Diploma of Extractive Industries Management Management Competencies – Quarry Manager		**Core (C) or Elective (E)**				
Unit No.	**TITLE**	**II**	**III**	**IV**	**V**	**VI**
MNQ.QM/01.A	Implement and maintain statutory/legal compliance system				C	C
MNQ.QM/02.A	Implement and maintain site risk management processes associated with occupational health and safety and the environmental systems				C	C
MNQ.QM/05.A	Implement and maintain pit development plan				C	C
MNQ.QM/06.A	Implement, lead and maintain quarry operations				C	C
MNQ.QM/07.A	Implement and maintain operational performance management system				E	E
MNQ.QM/08.A	Implement and promote quality system				E	E
MNQ.QM/09.A	Organise and manage team performance				C	C
MNQ.QM/10.A	Implement and promote continuous improvement processes				E	E
MNQ.QM/11.A	Select and commission quarry plant and equipment				E	E
MNQ.QM/12.A	Plan, conduct and oversee drilling operations				E	E
MNQ.QM/13.A	Manage blasting operations				E	E
MNQ.QM/14.A	Plan and monitor water management				C	E
MNQ.QM/15.A	Plan and monitor recycled materials operations				E	C
MNQ.QM/16.A	Design stockpile formations and reclaiming systems				C	C
MNQ.QM/17.A	Develop, implement and maintain process control systems				E	E
MNQ.QM/18.A	Design and monitor dredging/barge operations (sluicing) – sand and gravel				E	E
MNQ.QM/19.A	Design and maintain by-product disposal and water recycling system and settling ponds				E	E
MNQ.QM/20.A	Conduct Sales within an Extractive operation				E	E
Advanced Diploma of Extractive Industries Management Management Competencies – Specialist Manager						
MNQ.SM/01.A	Design, implement, maintain and evaluate statutory/legal compliance system					E
MNQ.SM/02.A	Design, implement maintain and evaluate organisational risk management processes, associated with occupational health and safety and environmental management systems					E
MNQ.SM/03.A	Conduct Feasibility Study					E
MNQ.SM/04.A	Design, plan and implement quarry development					E
MNQ.SM/05.A	Plan pit development					E
MNQ.SM/06.A	Develop, implement and lead quarry operations.					E
MNQ.SM/07.A	Design and implement operational performance management system					E
MNQ.SM/08.A	Design, implement, maintain and evaluate quality system					E
MNQ.SM/09.A	Design, implement, maintain and evaluate team based work organisation					E
MNQ.SM/10.A	Design, implement, maintain and evaluate continuous improvement processes.					E

4 EXTRACTIVE INDUSTRIES ASSESSMENT GUIDELINES

Introduction

The Extractive Industries Assessment Guidelines are one of the endorsed components of the Extractive Industries Training Package. They are for use by a range of people including:

- mining industry assessors
- enterprises
- registered training organisations and trainers
- training managers
- human resource managers
- regulatory authorities
- industry bodies.

The Guidelines aim to:

- provide information on the context and issues for effective assessment
- show where assessment fits in recognising workplace knowledge and skills and leads to a qualification
- support knowledge and skill recognition for career progression
- recognise current practices and bodies associated with assessment
- build on and formalise existing good practice within enterprises and training organisations
- provide guidance for those involved to improve their systems and practice
- provide guidance for newcomers to training and assessment
- provide information on what constitutes good practice in assessing the Extractive Industries Units of Competency.

Assessment is the process of collecting evidence of the skills and knowledge a candidate has developed, either in a structured learning situation, at work, or in some other context. The mining industry has adopted a competency based learning system. This means that each candidate's skills and knowledge are assessed against the nationally endorsed standards of competence required by industry, rather than compared with the skills and knowledge of other candidates.

These guidelines set out the mining industry assessment system and its implementation in the Extractive Industries for ensuring that qualifications awarded in the industry recognise achievements of a consistently high standard, are nationally recognised, and encourage

flexible ongoing learning. The system gives individuals access to formal qualifications through one of three pathways:

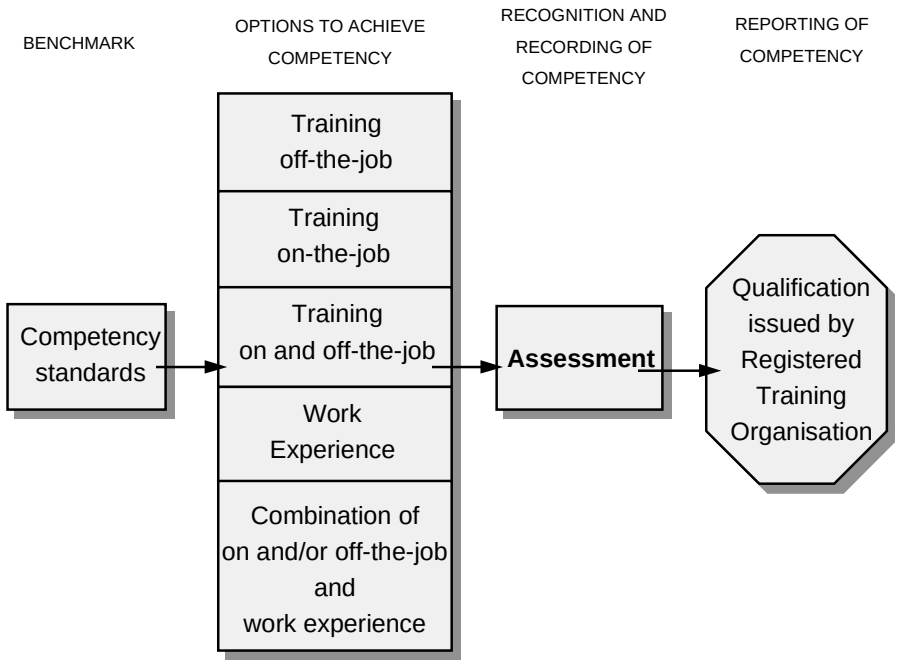
- formal training and assessment
- assessment only industry recognition, or
- a combination of workexperience, training and assessment.

The pathways described lead to nationally recognised qualifications because they involve:

- Registered Training Organisations (RTO's)
- assessment against the nationally endorsed Extractive Industries Competency Standards
- assessment in accordance with endorsed Assessment Guidelines
- a nationally monitored quality assurance framework.

The following figure shows the pathways to a qualification.

FIGURE 2 *ASSESSMENT AND QUALIFICATION*



The policies and guidelines developed to support an industry assessment system must be consistent with legislative, regulatory and statutory requirements and will be directed at ensuring that relevant personnel are aware of and implement legislative, statutory and regulatory requirements.

The Mining Industry Assessment System

Overview

The mining industry assessment system builds on and formalises good practice within mining enterprises and training organisations. It provides a common language for recognition of competency throughout the mining industry. These Guidelines contextualise the system for the Extractive Industries, providing a framework for implementation.

In the mining industry, assessment is used for a range of purposes:

- to meet legislative and regulatory requirements
- to satisfy quality system requirements
- to establish enterprise requirements for a particular function or use of a machine.

Implementation of these Guidelines means that assessments can also be used for the issuing of nationally recognised AQF qualifications.

Benefits

The system offers benefits for employers, employees/assessment candidates, and contractors.

For employers:

- provides benchmarks for employee skills, knowledge and competence
- provides a mechanism for formal recognition of skills and knowledge developed at work
- assists in the process of multi skilling and cross skilling
- assists in identifying employees with the required mix of knowledge and skills, and therefore makes recruitment more reliable and consistent
- sets workplace standards and serves as the basis of performance appraisal
- serves as a starting point in enterprise agreements
- assists in specification of the skills level required of contractors
- supports due diligence responsibilities
- assists in meeting legal and regulatory training requirements.

For employees/assessment candidates:

- provides formal recognition of competencies developed at work
- leads to a nationally recognised qualification

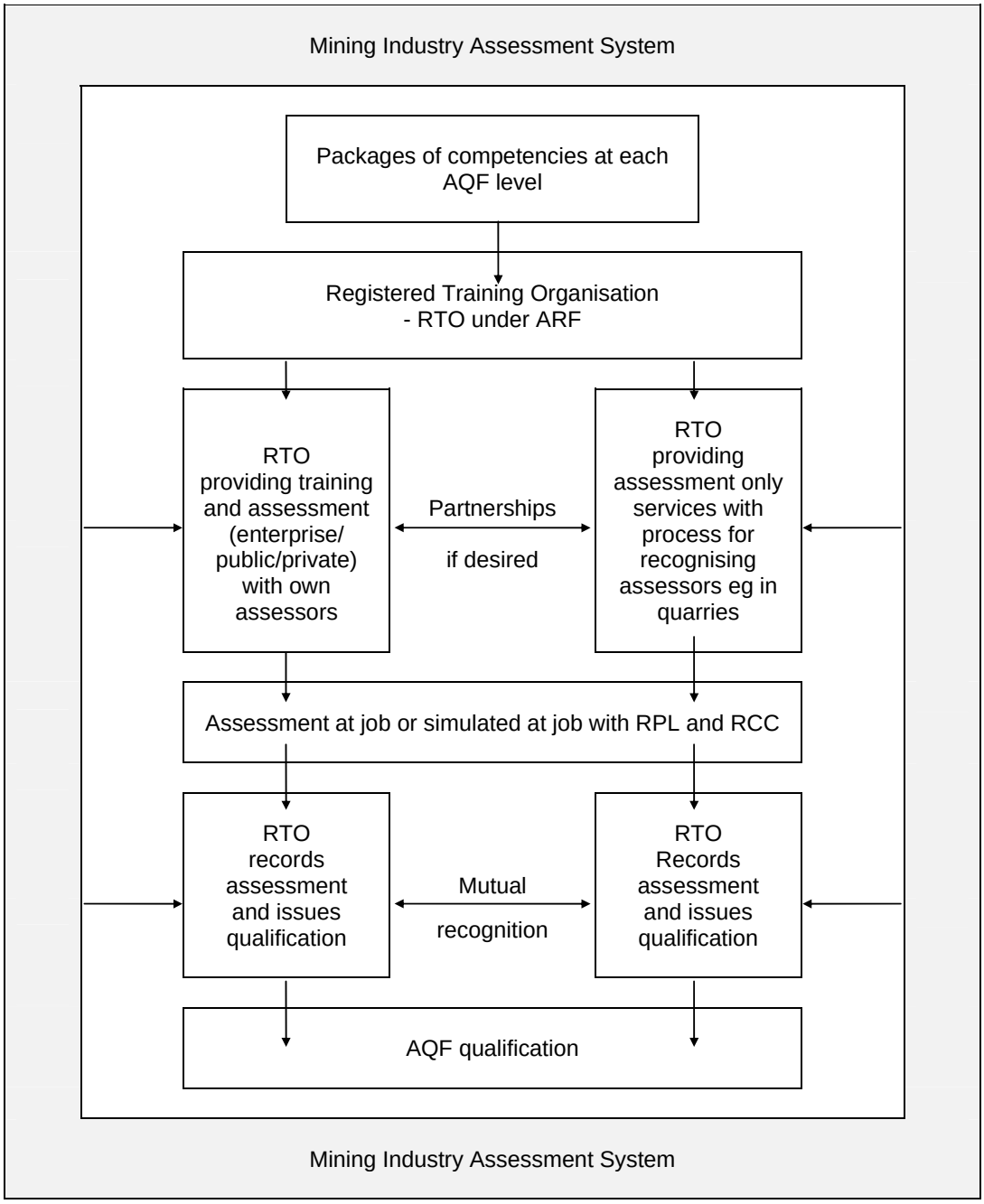
- assists in identifying and pursuing a career path
- focuses training on individual needs
- assists in the process of multi skilling and cross skilling
- offers flexibility, so people can learn at their own pace and choose the structured and/or work-based training and assessment environment that best suits them.

For contractors:

- provides evidence that their skill mix meets their contractual requirements
- provides a benchmark for contractor capability assessment
- leads to portable, nationally recognised qualifications
- provides contractors with documentation to assist in indemnity
- supports contractors in building efficient systems for multi site operations.

The system, which is summarised in the following diagram, is competency based and nationally endorsed. The components and features of the system are detailed in the following pages.

Figure 3: *MINING INDUSTRY ASSESSMENT SYSTEM*



Competency and AQF qualifications

In the mining industry assessment system, the endorsed competency standards for each sector form the benchmark for assessment. Assessment in the Extractive Industries is therefore based on the nationally endorsed Extractive Industries Competency Standards. These Standards, and other nationally endorsed competency standards recognised by the Extractive Industries, set the benchmarks that candidates must reach for full or part qualifications under the Australian Qualifications Framework (AQF). Results of assessments have national recognition, regardless of how candidates have acquired their skills and knowledge or which assessment pathway they have followed.

For qualifications under the AQF in the mining industry, assessment must be at job, conducted in the workplace or in a simulated situation. Although evidence for assessment may be gathered from a range of environments, on the job, off the job, or a combination of both, assessment at job ensures that competencies are relevant to the industry, and that candidates can function effectively in the real work environment. The technology, size and complexity of the equipment to be used, occupational health and safety issues, and legislative and regulatory requirements, require assessment in the Extractive Industries to be conducted in the workplace or a simulated situation.

Extractive Industries Units of Competency and AQF levels

Units of Competency from the Extractive Industries Competency Standards have been packaged and aligned with AQF levels to form the following qualifications.

- Certificate II in Extractive Industries (Operator)
- Certificate III in Extractive Industries (Operator)
- Certificate IV in Extractive Industries Operations
- Diploma of Extractive Industries Management
- Advanced Diploma of Extractive Industries Management.

There is flexibility of choice for elective Units in each qualification. This allows for the customisation of those qualifications to meet the needs of individuals and employers, while retaining the essential core Units of Competency.

Specific criteria exist for individuals who are seeking a qualification to meet the requirements of a Statutory Licence to practice as a Mine/Quarry Manager or Shotfirer. Individuals and/or enterprises should check the relevant Act and legislative requirements in their State/Territory when selecting Units of Competency for a qualification.

Candidates who demonstrate that they have acquired one or more Units of Competency, but not enough for the award of a qualification, may receive a Statement of Attainment, which they can build on at some later time to achieve a qualification.

Extractive Industries pathways to a qualification

The Extractive Industries recognise qualifications awarded by an Registered Training Organisation, which candidates achieve through:

- the recognition of current competencies and prior learning that meet AQF competency requirements
- a combination of a course of study meeting the AQF competency requirements and/or recognition of prior learning or current competencies, including credit transfer, and/or experience.

Qualifications can be reached through three main pathways:

- structured training and assessment
- assessment only recognition of competencies
- a combination of workplace experience, training and assessment.

All pathways incorporate the recognition of prior learning (RPL) and recognition of current competencies (RCC), are based on the same assessment benchmarks and industry-endorsed assessment procedures, and include assessments conducted by qualified assessors. All lead to nationally recognised qualifications, but the time taken to gain a qualification will vary according to the pathway taken and factors related to the particular enterprise or work area.

The structured training and assessment and assessment only industry recognition pathways are summarised in Table 4 and detailed in the following pages. Any combination of these pathways can lead to an AQF qualification.

TABLE 4 *PATHWAYS TO A QUALIFICATION*

Responsible For	TRAINING & ASSESSMENT PATHWAY	ASSESSMENT ONLY PATHWAY
Training design	Registered Training Organisation– enterprise or public or private	Enterprise
Training delivery	Registered Training Organisation perhaps with enterprise partnership	Enterprise, perhaps with Registered Training Organisation partnership
Training context	Some off-job, some simulated situations or enterprise partnership	Enterprise
Assessors	Assessor recognised by Registered Training Organisation training and assessment services	Assessors recognised by Registered Training Organisation providing assessment only services
Assessment records	Registered Training Organisation	Enterprise, and Registered Training Organisation providing assessment only services
Issuing qualifications	Registered Training Organisation	Registered Training Organisation providing assessment only services
Quality assurance	Registered Training Organisation and ARF process and procedures	Registered Training Organisation providing assessment only services and ARF process and procedures

Training and assessment pathway

The training and assessment pathway provides qualifications as a result of formal training and assessment by a public training provider, private training provider or an enterprise registered by a State/Territory Recognition Authority as a Registered Training Organisation for training and assessment purposes against the Extractive Industries Training Package.

Training

Registered Training Organisations operating in the Extractive Industries design and deliver formal structured training programs that reflect the Extractive Industries Competency Standards as outlined in the Extractive Industries Training Package. For some components of a program, such as the development of knowledge that underpins successful performance of practical tasks, the training is conducted off the job. Program participants must learn to apply their knowledge and skills in simulated workplace environments, or during work with local enterprises.

Assessments

Assessors employed or recognised by the Registered Training Organisation conduct assessments. Some parts of the training program may be assessed off the job, but all assessment against competencies must be conducted in practical industry settings: either in simulated situations or at local enterprises (see *Partnerships and flexible arrangements — blending pathways,* below).

Recording competencies

The assessor reports the assessment outcomes to the Registered Training Organisation when a candidate has successfully demonstrated one or more units of competency.

The Registered Training Organisation is responsible for recording the results of all assessments, and keeping the candidates' personal files secure and confidential.

Issuing qualifications

The Registered Training Organisation issues an AQF qualification when a participant has achieved a relevant package of competencies as outlined in the Extractive Industries Training Package. Any qualification issued under the AQF must be issued with documentation which identifies the Units of Competencies achieved.

If a candidate leaves the program before achieving all of the competencies for a qualification, the Registered Training Organisation issues a Statement of Attainment for competencies achieved.

Quality assurance

Each Registered Training Organisation is responsible for ensuring the fairness, validity, reliability and consistency of the assessments it conducts. All assessment processes must apply meet Australian Recognition Framework requirements, National assessment principles and provide consistency of outcomes.

Assessment only pathway

The assessment only pathway involves a Registered Training Organisation, providing assessment only services. This may be an enterprise, or a public or private Registered Training Organisation. It provides formal qualifications as a result of assessment of candidates in enterprises and/or employed by contractors. Assessors recognised by the Registered Training Organisation conduct the assessment.

Training

Structured training is designed and delivered at work, either as part of routine operations or in designated training sessions. Candidates, their supervisors and trainers use the Extractive Industries Competency Standards as the benchmark for the skills and knowledge that the candidates are expected to acquire. They organise a formal assessment when reasonably confident that the candidate has acquired one or more Units of Competency.

Assessments

Assessors recognised by the Registered Training Organisation providing assessment only services conduct the assessments in the workplace. Assessors may be employees of the enterprise, or an assessor from another enterprise or training organisation.

The assessor checks the candidate's acquisition of one or more Units of Competency in consultation with the candidate's supervisor, team leader, site co-ordinator and/or training department within the enterprise. Evidence should be gathered on a number of occasions, in a variety of contexts and situations (for information about the assessment process, see Part 2 of these Guidelines). The assessment must be at job, and conducted in the workplace or in a simulated situation.

Recording competencies

If the candidate is successful, the assessor reports the assessment outcomes to the Registered Training Organisation providing assessment only services. The enterprise also keeps records of an employee's assessment, in compliance with legislative and regulatory requirements, quality system requirements and Duty of Care.

The Registered Training Organisation is responsible for recording the results of all assessment and keeping the candidates' personal files secure and confidential.

Issuing qualifications

The Registered Training Organisation issues an AQF qualification if the candidate has demonstrated the required package of competencies, and maintains records of all applicants' achievements in assessment. Any qualification issued under the AQF must be issued with documentation which identifies the Units of Competency achieved.

If an employee leaves an organisation or withdraws from training before achieving all the competencies required for a qualification, the Registered Training Organisation providing assessment only services will issue Statements of Attainment for the competencies the candidate has achieved. The Registered Training Organisation maintains records of the competencies achieved by applicants for Statements of Attainment, so people can return to training and build on earlier achievements to attain full AQF qualifications.

Quality assurance

Ensuring the integrity of the industry recognition pathway to qualifications is the responsibility of the Registered Training Organisation providing assessment only services. The Registered Training Organisation is required to ensure that assessments conducted at the enterprise by assessors meet national assessment principles, and that AQF qualifications are only issued when earned. Assessments must be demonstrably fair, reliable, valid and flexible and provide consistent outcomes.

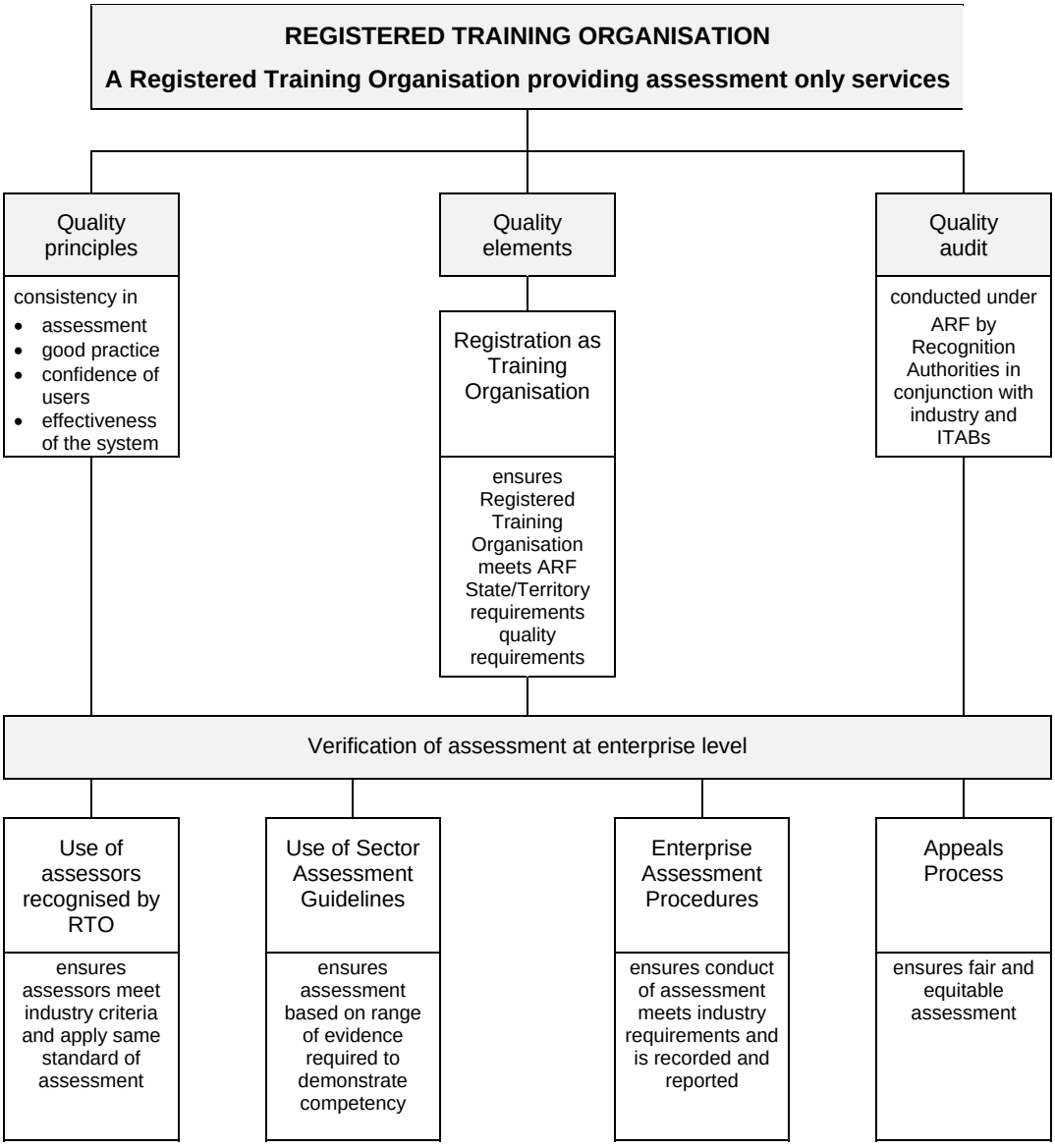
Registered Training Organisation providing assessment only services suggested function and quality assurance

The availability of a Registered Training Organisation providing assessment only services gives enterprises and contractors access to nationally recognised AQF qualifications even though they are not themselves Registered Training Organisations, or in partnership with Registered Training Organisations.

The procedures and qualifications outlined in these guidelines for the recognition of assessors ensure that all assessments endorsed by the Registered Training Organisation meet industry requirements and national standards for competency-based assessment.

The quality standards of the Registered Training Organisation providing assessment only services are demonstrated in the following model.

FIGURE 4 *REGISTERED TRAINING ORGANISATION PROVIDING ASSESSMENT ONLY SERVICES QUALITY MODEL*



Partnerships and flexible arrangements — blending pathways

The Extractive Industries assessment system supports and encourages flexible training and assessment arrangements based on partnerships between enterprises and the providers of formal structured training programs. Such partnerships optimise the use of resources and maximise opportunities for individuals to progress in the industry through improving their skills, knowledge and qualifications.

RTO's are ultimately responsible for the assessment outcomes and the reporting and storage of individual records.

AQF qualifications can be achieved through any partnership arrangement that includes the following:

- Assessment must be conducted by an assessor recognised by a Registered Training Organisation registered against the Extractive Industries Training Package. Assessment is against the Extractive Industries Competency Standards, in a real or simulated situation.
- Confidential records of training and assessment must be maintained by an RTO offering training and assessment; records of off the job training and assessment may be maintained by enterprises. Enterprises may also keep duplicate records if required.
- Qualifications can only be issued by a Registered Training Organisation endorsed by a State/Territory Recognition Authority under ARF for the Extractive Industries Training Package.

Individuals may complete part of their training in an enterprise and part with an Registered Training Organisation. People who have completed relevant packages of competency through either pathway or any blended pathway can choose to gain their qualification through a Registered Training Organisation providing assessment only services. Some options are shown in the following Table 5.

TABLE 5 *FLEXIBLE ARRANGEMENTS – BLENDING PATHWAYS*

PATHWAY TO A QUALIFICAITON	ASSESSMENT	QUALIFICATION
1. Enterprise that is not a Registered Training Organisation conducts training and assessment. Some off the job training may be provided by other organisations that also are not Registered Training Organisations.	Assessment undertaken by assessors employed by the enterprise or contracted from outside the enterprise and recognised by the Registered Training Organisation providing assessment only services.	Registered Training Organisation providing assessment only services
2. Enterprise which is a Registered Training Organisation conducts training and assessment	Assessment undertaken by assessors employed by the enterprise or contracted from outside the enterprise.	Registered Training Organisation(ie. the enterprise)
3. Off the job training by a Registered Training Organisation with at job training by an enterprise. The enterprise employs and provides an assessor recognised by the Registered Training Organisation.	The Registered Training Organisation conducts off the job assessment; and the enterprise conducts the at job assessment.	Registered Training Organisation
4. Off the job training by a Registered Training Organisation, with at job training by an enterprise. The enterprise provides a technical expert to assist in assessment.	The Registered Training Organisation conducts off the job assessment and provides assessors to conduct at job assessment in conjunction with the technical expert provided by the enterprise.	Registered Training Organisation
5. Off the job training by a Registered Training Organisation, with at job training by an enterprise.	The Registered Training Organisation conducts off the job assessment and provides assessors to conduct at job assessment.	Registered Training Organisation

Assessor qualifications

Assessments against the competencies in the Extractive Industries Training Package will be carried out in accordance with these endorsed guidelines. The guidelines include the necessary qualifications for those conducting assessments and provide for those situations where more than one person may contribute to the assessment and where the required technical and assessment competencies may not all be held by any one person.

To be recognised as an assessor in the Extractive Industries, assessors should meet the following criteria:

- have demonstrated competence against the following two Units of Competency from the Assessment Competency Standard:
  - conduct assessment in accordance with an established assessment plan; and
  - extension unit: plan and review assessment
- have an understanding of the industry context, of the use of endorsed Extractive Industries Competency Standards as the benchmarks for assessment, and be able to work with a technical expert
- be competent in an area within the Extractive Industries at least to the level being assessed.

Assessor competency standards may be achieved by successful completion of an accredited course or RPL for a Certificate in an accredited course.

Training organisations must consult with enterprises to determine the appropriateness of the assessors for at job assessments within the enterprise.

Specific criteria may exist for assessors who are assessing a candidate for a qualification that is a requirement for the issue of a Statutory Licence to practice, for example Mine/Quarry Manager, Shot Firer. This requirement may vary from state to state depending on legislative requirements.

Assessment arrangements

In some cases, assessors will meet the criteria required by the industry and have a sound understanding of the general industry context, but not have the necessary expertise to conduct assessments according to the specific needs of a particular enterprise. This difficulty can be overcome by assessors working in teams. If a team conducts an assessment, it is important that the enterprise is first consulted, and recognises and trusts the technical expert.

Suitable arrangements may include:

- An assessor who is not competent in the area being assessed, but who meets all other criteria, works with another person (a technical expert) who is competent in, and can advise on, the relevant vocational competencies at least to the level being assessed.
- The assessor convenes an assessment panel with members who, between them, meet all of the requirements of the industry and the enterprise.
- An assessor who is not familiar with the assessment evidence being collected, works with a workplace team leader or supervisor who has the relevant vocational competencies at least to the level being assessed.
- An assessor monitors and validates assessment procedures carried out by a workplace supervisor, team leader or site coordinator with the relevant vocational competencies at least to the level being assessed.

Guidelines for Designing Assessment Materials

Most assessments in the Extractive Industries take place at work or in a simulated workplace. When designing assessment processes, assessors therefore first need to 'interpret' the Units of Competency to suit the assessment environment. This involves identification of:

- equipment to be used in the assessment, and the manufacturer's instructions for its use and/or maintenance
- occupational health and safety policies and requirements of the organisation
- the specific knowledge, understanding and agreed procedures that apply in the workplace(s) concerned.

Determining appropriate assessment methods and tools

It is the responsibility of the assessor, working with other technical experts if necessary, to determine appropriate ways of gathering evidence of a candidate's competency. The evidence may be collected over time, rather than on just one occasion, but the evidence gathering should not be prohibitively costly or time-consuming. Assessors must ensure that assessment processes do not place inappropriate emphasis on language, literacy or numeracy, and do not disadvantage candidates on inappropriate grounds such as gender or cultural background.

Given these constraints, key questions to consider when selecting assessment methods and tools include:

Will the evidence be valid?	Do the assessment methods and tools used measure what they claim to measure?
Will the evidence be reliable?	Would the assessment methods and tools provide consistent outcomes regardless of who does the assessment?
Will the evidence be authentic?	Can the assessor be confident that the assessment methods and tools will provide evidence of the candidate's own performance?
Will the evidence be sufficient?	Do the assessment methods and tools gather enough suitable evidence to result in an acceptable judgment about whether competence has been demonstrated?
Are the assessment methods and tools fair?	Do the assessment methods and tools provide a fair assessment for all candidates, or do they rely (to any extent) on irrelevant factors?

Methods and tools — glossary

Assessment methods and tools commonly applied in the Extractive Industries include:

Observation of skill demonstration

This involves the assessor observing performance (either real or simulated) and, if appropriate, checking the product produced by the candidate during the demonstration. Performance may be observed in a structured manner or unobtrusively through direct or indirect methods.

Oral questions

By asking the candidate oral questions, the assessor can test the candidate's communication skills at the same time as authenticating the knowledge that underpins performance. One advantage of oral questioning is that the candidate can seek clarification from the assessor when necessary. This is not possible with written or computer-based questions.

Written questions

Written questions may take a number of forms such as:

- Multiple choice — a question or incomplete statement followed by four or five options from which the candidate selects the correct one.
- Short answer — a question with a predetermined answer that varies from one word to, at most, two or three sentences.

Simulation

A simulation is a mock situation in which the candidate can be asked to reproduce normal workplace performance. Simulations are common in circumstances where cost, safety and operational demands on equipment and other resources may limit access to the workplace for conducting assessments. Courses provided by training organisations that are not in partnership with an enterprise usually rely on simulations for both training and assessment.

Case studies

A case study can be based on written information and/or practical experiences in a simulated or actual workplace. It provides the candidate with opportunities to demonstrate their problem solving and decision-making skills, and their flexibility in applying underpinning knowledge to new contexts.

Project

A project is usually a quite complex and/or time-consuming exercise which a candidate completes without close supervision, then submits for assessment. Projects often include the completion of a project report about how the project was carried out.

Portfolio

A portfolio is a presentation of documented evidence of a candidate's competency. It may include examples or a critique of a candidate's work. Evidence provided in a portfolio must be authenticated.

Critical incident

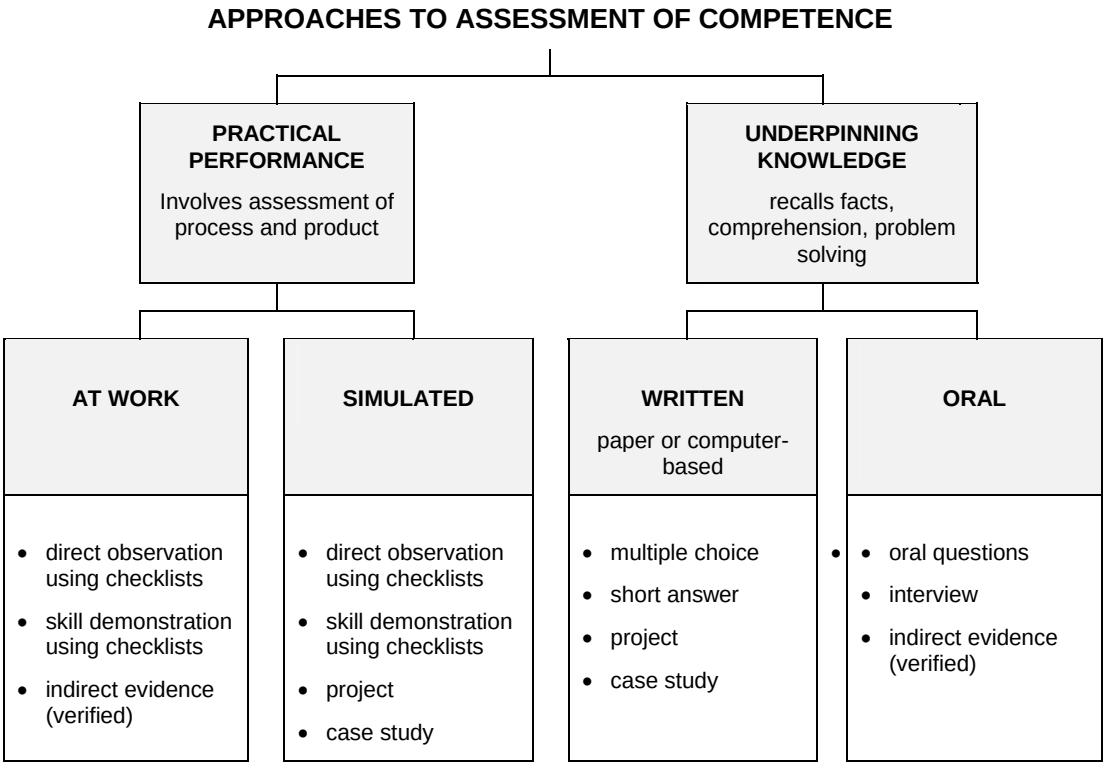
Assessments based on critical incidents involve a candidate identifying a problem or challenging workplace situation that they feel they resolved. The assessor and the candidate discuss how the candidate responded to the incident and how a similar response could be translated to other situations. The analysis of critical incidents is useful as a way of assessing the candidate's acquisition and application of a cluster of competencies.

Indirect evidence

Indirect evidence is evidence of competency that is not demonstrated for the assessor. For example, ability to apply standard emergency procedures may be assessed on the basis of a supervisor's statement about a candidate's performance in the workplace.

Different approaches are suited to the assessment of different types of competency. Figure 5 outlines some of these approaches.

FIGURE 5 *SUITABLE ASSESSMENT METHODS*



Note: Oral questions can also be used in conjunction with skill demonstration and observation.

Guidelines for Conducting Assessments

The nationally endorsed Extractive Industries Competency Standards are the benchmark for assessment in the Extractive Industries. Like competency standards applicable to other industries, they are expressed in a common format based on Units of Competency. **All formal assessments must relate to one or more Units of Competency,** no matter how that competency has been acquired.

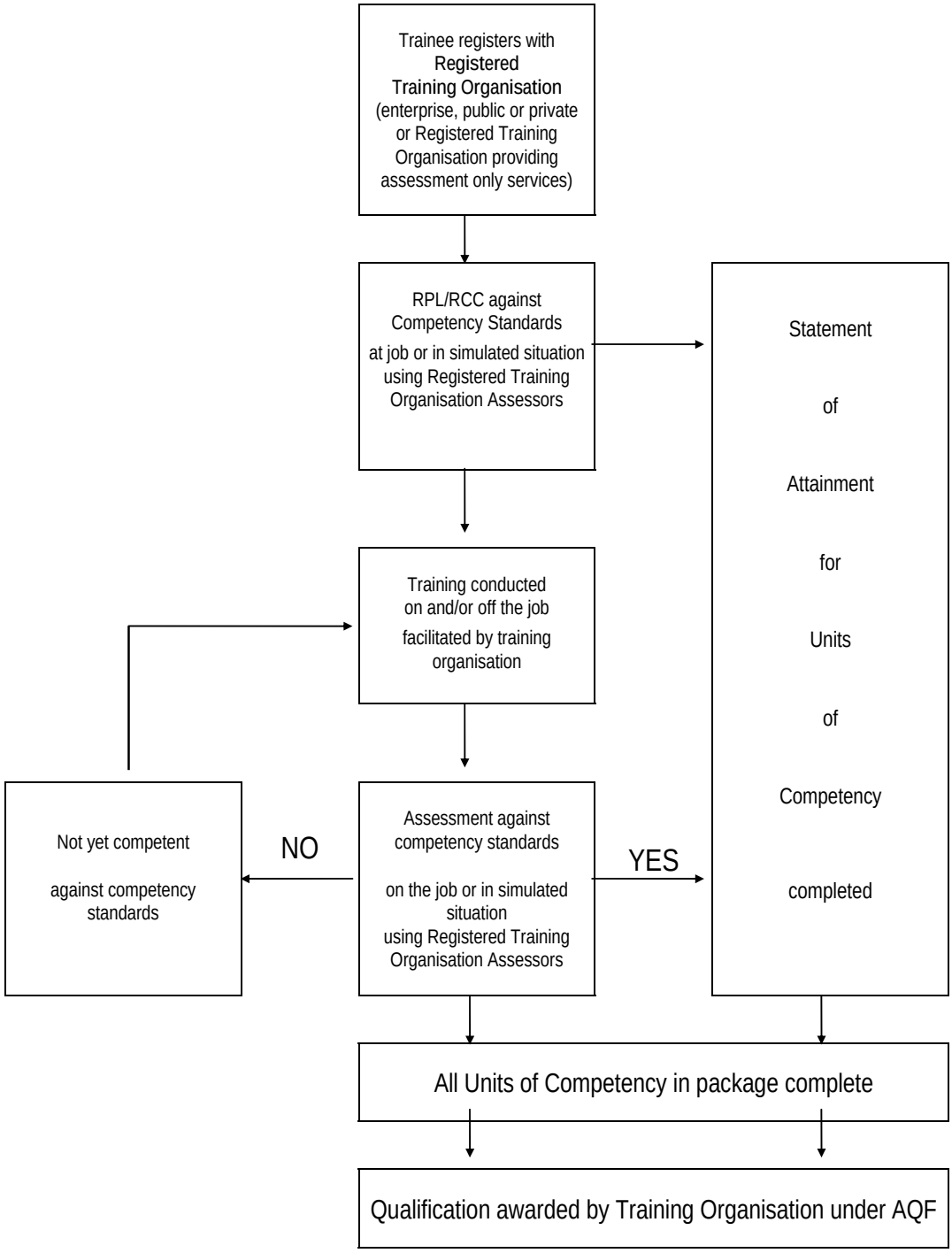
Each Unit of Competency has the following components, which provide guidance on suitable training and assessment activities and outcomes:

Unit of Competency	Refers to a general area of competence (ie. skills and knowledge) described in the title of the unit. Each unit contains elements, performance criteria and a range of variables.
Elements of competency	Elements describe the things that an employee who works in a particular area will be able to do. They are expressed as actions or outcomes that can be assessed.
Performance criteria	Performance criteria guide the assessor in judging a candidate's skills and knowledge. They specify the level of performance expected if the candidate has achieved the Unit of Competency.
Range of variables	the range of variables refers to the industry- and enterprise-specific factors that may apply to the Standards. It places the unit of competency in the context in which performance should be demonstrated, eg. typical facilities and equipment.
Evidence guide	This part of the unit indicates the kinds of evidence that is required to demonstrate full competency in the unit, including underpinning knowledge and transferable skills.

Conducting assessments

Assessments are conducted when a candidate (and/or their trainer or supervisor) is reasonably confident that they have acquired one or more Units of Competency. The candidate may have acquired the competency through recent training or through previous training or experience (ie. Recognition of Prior Learning or Recognition of Current Competency), as shown in the following model.

Figure 6 Qualifications through training or RPL/RCC



Recognition of Prior Learning (RPL) and Recognition of Current Competencies (RCC)

Recognition of Prior Learning (RPL) and Recognition of Current Competencies (RCC) are ways of recognising that a person has achieved required competencies, through previous informal and formal learning, or through work and life experience. Assessments for RPL and RCC rely on the same range of evidence as assessments of competencies people have recently

acquired through training, however they may also include documentary evidence of previous achievements, qualifications and references from people who are familiar with the candidate's record.

RPL and RCC assessments should be conducted before training is recommended. Figure 7 diagrammatically represents the procedures involved in recognising prior learning or current competencies against the Extractive Industries Competency Standards.

FIGURE 7 *THE EXTRACTIVE INDUSTRIES PROCESS FOR RPL AND RCC*

PROCESS FOR RPL/RCC	COMMENT
A candidate with experience and/or qualifications seeks recognition	Recognition is sought for Unit(s) of Competency in the Extractive Industries Competency Standards and candidate is briefed on requirements
Units relevant to the workplace and/or qualification(s) are identified and performance criteria and context for assessment required for each Unit sought is identified	Workplace and/or Registered Training Organisation assistance should be provided to help identify relevant units and assessment requirements
The candidate's experience and/or qualification(s) are matched with performance criteria and related evidence guide and range statement	Evidence is gathered to meet assessment requirements with workplace and/or Registered Training Organisation support. Advice and documentation from others such as supervisor, team leader, training manager and workplace reports may be useful
Units of competency demonstrated are verified	Assessment methods may include: oral questioning demonstration and observation documentary evidence portfolio
Evidence is judged on: sufficiency validity reliability currency authenticity	Assessment is conducted by an assessor who meets Extractive Industries criteria for assessor qualification
Partial or full recognition of evidence	Partial recognition requires further evidence or training
Award of Statement of Attainment or AQF qualification by Registered Training Organisation	A Statement of Attainment is awarded for demonstration of Units of Competency and an AQF qualification when all required Units of Competency are demonstrated

Combined approaches and holistic assessment

In many cases, assessors will be able to use a range of different assessment methods combined, to gather the required evidence. This is important as a means of ensuring full competency (rather than an ability to perform just one type of assessment task particularly well) and maximising candidates' chances of demonstrating their skills and knowledge.

Using a range of methods and tools also supports integrated or holistic assessment. This means designing assessment activities that combine the knowledge and understanding, problem-solving and technical skills, and attitudes and ethics that go towards successful completion of workplace tasks. Holistic assessment usually involves:

- actual or simulated workplace tasks, especially tasks which require the integration of a range of competencies and associated underpinning knowledge
- the use of analytical skills to solve problems associated with the task(s)
- a combination of theory and practice.

Minimising the cost of assessment in the workplace

Assessors should, where possible, find ways to minimise the cost and inconvenience caused by assessment activities, for example:

- use performance of actual work activities as sources of evidence
- arrange for demonstrations of competence in the most appropriate place
- make the assessment-only as precise and/or complex as necessary at the candidate's level of qualification and occupational area
- separate evidence gathering from judgement, and assign evidence gathering to less expensive personnel (including candidates themselves)
- design assessment events so that the candidate can have prior knowledge of the requirements and can be actively involved in evidence gathering
- use holistic assessment scenarios which build on secondary evidence such as a record book, trainer's report or workplace report
- limit the number of times a single competency or similar competencies are assessed
- monitor progress as part of normal responsibilities, rather than relying on assessment events
- provide self appraisal tools for candidates
- assess more than one competency at a time.

ASSESSORS' CHECKLIST

In **planning** the assessment have you:

- explained and confirmed the context of the assessment to the candidate
- checked that the assessment environment is safe and accessible
- arranged any resources required for the assessment
- informed all relevant people of the assessment plans
- arranged to gather the necessary range of evidence

In **conducting** the assessment have you:

- made sure you have gathered sufficient evidence
- provided clear and constructive feedback to the candidate during the assessment
- sought more evidence if you are unsure or gained guidance from another assessor
- made an assessment decision in accordance with the requirements for the unit of competency

In **finalising** the assessment have you:

- informed the candidate of the assessment decision and discussed it with them
- provided clear and constructive feedback
- provided the candidate with guidance on further goals or training opportunities
- advised the candidate of reassessment opportunities and/or the appeals mechanism if necessary
- recorded the assessment results in accordance with industry and Registered Training Organisation requirements
- maintained the confidentiality of the assessment outcomes
- reviewed the assessment process
- reported on the conduct of the assessment with any suggestions for improvement.

USEFUL CONTACTS

Any inquiries about the Extractive Industries Training Package should be directed to any of the following organisations.

Des Caulfield
National Mining ITAB
PO Box A2616
Sydney South NSW 2000

Phone: 02 9286 1433
Fax: 02 9264 9367

The Institute of Quarrying
PO Box 164
Keiraville 2500

Phone: 042 293 032
Fax: 042 293 661

New South Wales
Noel Parish
NSW Mining ITAB
PO Box A2616
Sydney South 2000

Phone: 02 9286 1433
Fax: 02 9264 9367

Queensland
Ian Johnson
Queensland Mining ITAB
PO Box 510
Brisbane 4004

Phone: 07 3221 2994
Fax: 07 3221 2455

Western Australia
Lee Jackson
Chamber of Mines and Energy WA
7/12 St George's Terrace
Perth 6000

Phone: 09 325 2955
Fax: 09 221 3701

Tasmania
Bob Perkins
Tasmanian Minerals and Processing ITAB
PO Box 237
Devonport 7310

Phone: 03 6424 3427
Fax: 03 6423 4382

Victoria
Paul Kennett
Victorian Engineering Skills Training Board
PO Box 1276
Collingwood 3066

Phone: 03 9417 2277
Fax: 03 9416 2662

Northern Territory
Gil Court
NT Mining ITAB
PO Box 1610
Darwin 0801

Phone: 08 8991 0077
Fax: 08 8981 0060

RELATED REFERENCES, RESOURCES AND MATERIALS

Australian National Training Authority. 1997. *A Marketing Model for Industry Training, Training Packages. Quality skills, to meet your needs.* ANTA. Brisbane.

Australian National Training Authority. 1997. *Guidelines for Training Package Developers. Australia's National Training Framework.* ANTA. Brisbane.

Australian National Training Authority. 1997. Assuring Quality and Choice in National Training. *Australia's National Training Framework.* ANTA. Brisbane.

Australian National Training Authority. 1996. *Generic Management Competency Standards for Frontline Management*. ANTA. Brisbane.

Guidance for Management of the Training Function

National Staff Development Committee. 1994. *Developing Competency-Based Curriculum for Adult Literacy and Basic Education.* NSDC. Melbourne.

Training Delivery/Facilitation Skills and Approaches to Workplace Training

National Staff Development Committee. 1996. *Case Studies of Action Learning Groups Volume 3: Flexible Delivery*. NSCD. ANTA. Melbourne.

National Staff Development Committee. 1996. *Case Studies of Action Learning Groups Volume 4: Workplace Competencies and CBT Implementation*. NSCD. ANTA. Melbourne.

National Staff Development Committee. 1994. *Responsibility — People with Disabilities: Skilling Staff in Vocational Education, Training and Employment Sectors*. NSDC. Melbourne.

National Staff Development Committee. 1995. *Gender Inclusive Training – Module*. NSDC. Melbourne.

National Staff Development Committee. 1995. *Gender Inclusive Training Kit – Boxed Kit*. NSDC. Melbourne.

Design of Training Resource Material

Australian Committee for Training Curriculum. 1995. *Gender Inclusive Guidelines for Curriculum Designers and Writers*. ACTRAC Products Ltd. Melbourne.

Courtenay, M. and G. Mawer. 1995. *Integrating English Language, Literacy and Numeracy into Vocational Education and Training: A Framework*. DEETYA. Adult Literacy Information Office. Sydney.

Department of Employment and Youth Affairs. 1997. *Integrating Key Competencies. Volumes 1-6*. The Office of Training and Further Education.

Fitzpatrick, L. and A. Roberts. 1997. *Workplace Communication in National Training Packages*. A Practical Guide. DEETYA. Language Australia Publications.

National Staff Development Committee. 1996. *Case Studies of Action Learning Groups. Vol 2: Curriculum and Learning Resources Development*. NSDC. ANTA.

Australian National Training Authority. 1997. *Better Training. Addressing English Language, Literacy and Numeracy in Vocational Education and Training*. ANTA. Melbourne.

Assessment of Competencies and Recognition of Prior Learning

A Guide to the Competency Standards for Assessment, National Assessors and Workplace Trainers Body, PO Box 2164, Clovelly NSW 2031. Ph: 02 9664 2305 Fax: 02 9665 0549.

Competency Standards for Assessment, National Assessors and Workplace Trainers Body, PO Box 2164, Clovelly NSW 2031. Ph: 02 9664 2305 Fax: 02 9665 0549.

Hagar, P., J. Athanasou and A. Gonczi. *Assessment Technical Manual.* DEET. J.S. McMillan. Sydney.

National Staff Development Committee. 1995. *Case Studies of Action Learning Groups Vol 1: Assessment, Recognition, Evaluation.* NSDC. ANTA. Melbourne.

Rumsey, D. 1994. *Assessment Practical Guide.* DEET. J.S. McMillan. Sydney. Reference list of relevant resources and materials.

Workplace Assessor's Guide for the Australian Drilling Industry, ADITC Ltd, PO Box 1545 Macquarie Centre, NSW 2113. Ph: 02 9887 1077 Fax: 02 9888 2078.

Assessment of Competencies and Recognition of Prior Learning cont.

Guide to Assessment, Scottish Qualifications Authority. 1993. Hanover House, 24 Douglas Street, Glasgow, G2 7NQ.

Assessment Works – The Kit. Centre for Vocational Assessment Research. 1997. PO Box 5199, West Chatswood, NSW 2057. Ph: 02 9413 0807 Fax: 02 9412 4451.

Resources

- AQF Implementation Kit
- AQF Professional Development Kit
- Training and Assessment Matters – Newsletter of the National Assessors and Workplace Trainers Body, PO Box 2164, Clovelly, NSW 2031 Ph: 02 9664 2305 Fax: 02 9665 0549
- Video – Competency Standards in the Extractive Industries, State/Territory Mining ITABs
- Video – Assessing Core Skills, Workplace Assessor's Guide for the Australian Drilling Industry. ADITC Ltd. PO Box 1545 Macquarie Centre, NSW 2113. Ph: 02 9887 1077 Fax: 02 9888 2078.
- Video Safety in the Crushing Plant, Institute of Quarrying, PO Box 164 Kieraville NSW 2500. Ph: 02 4229 3032 Fax: 02 4229 3661.

GLOSSARY OF TERMS

Appeal Process	An integrated process, within any assessment system, that allows a person who has been assessed to dispute an assessment result and to have an opportunity for further assessment. The Appeal Process must meet the requirements of State/Territory Recognition Authorities.
Assessment	Assessment is the process of collecting evidence and making judgements on whether competency has been achieved
Assessment Guidelines	One of the endorsed components of Training Packages which sets out industry approach to valid, reliable and fair assessment and which underpins assessment carried out by Registered Training Organisations under the Australian Recognition Framework.
Assessment Records	Assessment results can be the basis of the issuing of certificates and qualifications as well as being valuable employment records. They must be kept as a permanent reference about a person's competencies, be stored securely and be readily accessible. Record keeping systems are established as part of an assessment system by a Registered Training Organisation and must comply with ARF and State/Territory Recognition Authority requirements
Assessment Materials	An optional component of Training Packages that complement endorsed industry assessment guidelines and could take the form of assessment exemplars or specific assessment tasks and instructions.
Assessment Tools	Methodology for gathering evidence. This can include direct questioning, direct observation of performance, projects, skill tests, simulations, written tests, examination of finished products, reports from co-workers and supervisors. A variety of assessment tools should be used in the process of establishing competency.
Assessor	A person trained and recognised as being competent in terms of the Competency Standards for assessment, who carries out assessment against competency standards. An assessor will be competent in the subject area being assessed or work with a technical expert.
Australian National Training Authority (ANTA)	ANTA is responsible for developing and implementing policy, strategic direction and priorities for an effective and relevant national vocational education and training system.
Australian Qualifications Framework (AQF)	A comprehensive policy framework defining all qualifications recognised nationally in post-compulsory education and training within Australia. The AQF comprises guidelines which define each qualification together with principles and protocols covering articulation, issuance of a qualification and transition arrangements.

GLOSSARY OF TERMS

Australian Recognition Framework (ARF)	The Australian Recognition Framework is a comprehensive approach to national recognition of vocational education and training (VET). It is based on a quality assured approach to the registration of training organisations seeking to deliver training, assess competency outcomes and issue qualifications.
Competency Standards	The specification of knowledge and skill and the application of that knowledge and skill to the standards of performance required in the workplace, expressed as a competency standard. Competency standards define the outcomes for training delivery, assessment and the issuance of qualifications and Statements of Attainment under the Australian Recognition Framework.
Customisation	Customisation is the tailoring of units of competence and associated training by Registered Training Organisations to provide a flexible response to industry and enterprise requirements. For Training Packages, customisation is the tailoring of units of competence by the inclusion, modification or substitution of competency units within their alignment with AQF qualifications.
Evidence	Information gathered through the use of a variety of assessment tools that will provide proof from which the assessor can make judgements about competency. In most assessments, evidence is gathered from more than one source, in more than one situation and can have many forms. Direct evidence is observation of performance, indirect evidence can include evaluation of products or services, simulations, or skill tests, questioning or reports from others.
Flexible Delivery	An approach to training that enables a variety of ways in which clients can learn and demonstrate competence. Clients can choose what, where and how they learn and are provided with training that suits their individual learning needs and styles.
Industry Training Advisory Bodies (ITABs)	ITABs are national organisations comprising representation from the industry parties for the development, review and implementation of competency standards and Training Packages. Each national ITAB has a State/Territory ITAB network which determines training priorities for the industry in that State/Territory.
Learning Strategy	An optional component of a Training Package that provides information on how training programs may be organised in the workplace and training institutions. The Learning Strategy complements the endorsed components of a Training Package by providing additional support for Registered Training Organisations seeking to put together specific training programs to assist trainees attain the required competencies.

GLOSSARY OF TERMS

National Training Framework	The National Training Framework identifies the key components of the vocational education and training system at the national level, the relationship between those components as well as the quality assurance and recognition arrangements that enable individuals to gain national recognition.
National Training Information System (NTIS)	This is a relational data base which provides up-to-date information on recognised vocational education and training, including details of endorsed Training Packages and their components (competency standards, assessment guidelines and qualifications and any non endorsed components) together with details of registered Training Organisations and their scope of registration. The Internet address for the NTIS is http://www.anta.gov.au
Professional Development Materials	An optional component of Training Packages which provides information for trainers on the various components of training packages and how these might be used to develop training programs.
Quality Assurance	A planned evaluation to ensure that standards are being appropriately applied and meets the needs of users. Quality assurance mechanisms are an integral part of a well-designed assessment system.
Recognition of Current Competencies (RCC)	The recognition of current skills and knowledge against relevant competency standards no matter how they have been acquired ie through formal training, work experiences and life experiences.
Recognition of Prior Learning (RPL)	The recognition of current skills and knowledge against relevant competency standards no matter how they have been acquired ie through formal training, work experiences and life experiences.
Registered Training Organisation (RTO)	Any training organisation, registered by State/Territory Training Authorities in accordance with the Australian Recognition Framework, to provide vocational education, training and/or assessment services. RTOs include TAFE Colleges/institutes, private commercial providers, community providers, schools, higher education institutions, enterprises and firms, industry bodies and any other organisation which meets the requirements for registration.
Training Package	Comprehensive integrated products which provide national benchmarks and resources for delivery, assessment and qualifications in vocational education and training. Training Packages comprise endorsed components of national competency standards, assessment guidelines and qualifications, combined with non-endorsed components which may include a learning strategy, assessment resources and professional development materials.

ATTACHMENT A

Extractive Industries Training Package Steering Committee

EXTRACTIVE INDUSTRIES TRAINING PACKAGE STEERING COMMITTEE

Mr S Wallace
Principal Project Officer
ANTA
GPO Box 5347 BB
Melbourne VIC 3001

Mr A Cox
Branch Organiser
AWU (Vic)
685 Spencer Street
West Melbourne VIC 3003

Mr T Ingram
Boral Quarries

Mr S Grima
Western Regional Manger
Boral Quarries (Vic)
1 Glenferrie Rd
Malvern VIC 3144

Ms C Olge
Senior Consultant
Boxhill Institute of TAFE
PO Bag 2014
Box Hill VIC 3128

Mr L Arnost
Boxhill Institute of TAFE
PO Box 2014
Box Hill VIC 3128

Mr D Duke
Technical Services Manager
Crushed Stone Assoc. NSW/Rocla
Level 3
6-8 Thomas Street
Chatswood NSW 2067

Mr R Bushrod
Director Industry Networks & Best Practice
DTEC
Level 14
1 Oxford St
Darlinghurst NSW 2010

Mr D Chalmers
Head Teacher - Mining
Illawarra Institute of Technology
PO Box 1223
Wollongong NSW 2500

Mr D Adam
Education Officer
Institute of Quarrying
PO Box 23
Kieraville NSW 2500

Mr K Chilman
Inspector of Mines
NSW Dept of Mineral Resources (DMR)
PO Box 536
St Leonards NSW 2065

Mr I Stainton
Chief Executive Officer
Penrith Lakes Development
Private Bag 2000
Sth Penrith BC NSW 2750

ATTACHMENT B

Extractive Industries Task Group of the NMITAB

EXTRACTIVE INDUSTRIES TASK GROUP OFF THE NMITAB

Danny Duke
Technical Services Manager
Crushed Stone Assoc. NSW/Rocla
Level 3
6-8 Thomas Street
Chatswood NSW 2067
Ph: 02 9928 3653
Fax: 02 9928 3650

Sam Grima
Western Regional Manger
Boral Quarries (Vic)
1 Glenferrie Rd
Malvern VIC 3144
Ph: 018 532186
Fax: 03 9467 7952

Adrian Hart
AWU/FIME National Office
PO Box 1594
Strawberry Hills NSW 2012
Ph: 02 9690 1022
Fax: 02 9690 1022

Terry Woods
Crushed Stone Assn of Aust (Qld)
Industry House
375 Wickham Terrace
Brisbane QLD 4000
Ph: 07 5493 0111
Fax: 07 5493 0099

Bill Stubberfield
IOQ WA Branch
C/- Boral WA
PO Box 268
Belmont WA 6984
Ph: 08 9333 3546
Fax: 08 9333 3535

Frank Cunningham
Area Manager NT
TNT Komatsu Forklifts
PO Box 39046
Winnellie NT 0821
Ph: 08 8947 1102
Fax: 08 8947 1692

Ken McKay
AWU/FIME
GPO Box 88
Brisbane QLD 4001
Ph: 07 3221 8844
Fax: 07 3221 8700

Robert Winkler
Pioneer Building Products
Extractive Industries Assn of SA
PO Box 96
Hindmarsh SA 5007
Ph: 08 8251 1266
Fax: 08 8289 2610

Joseph Murphy
AWU
PO Box 20
Granville NSW 2142

Ph: 02 9897 3644
Fax: 02 9897 1481
Mobile: 0414 764398

Phil Sidney
Crushed Stones Assn of Aust (Tas)
PO Box 599
Riverside TAS 7250

Ph: 03 63273660
Fax: 03 63342874

Mike Lewellyn
AWU/FIME Amalgamation Union
PO Box 8122
Perth Business Centre WA 6849

Ph: 09 221 1686
Fax: 09 221 1706

Greg Cooper
AWU/FIME (Tas)
PO Box 129
Nth Hobart TAS 7002

Ph: 03 6234 6396
Fax: 03 6234 5712

Mr I Stainton
Chief Executive Officer
Penrith Lakes Development
Private Bag 2000
Sth Penrith BC NSW 2750

Ashley Cox
AWU/FIME (Vic)
685 Spencer St
West Melbourne VIC 3003

Ph: 03 9329 8733
Fax: 03 9329 2871

OBSERVERS

R Bishop
Robin Bishop & Associates
PO Box 318
Annandale NSW 2038

Ph/Fax: 02 9660 4960

D Adam
Education Officer
Institute of Quarrying
PO Box 23
Kieraville NSW 2500

Ph: 02 4229 3032
Fax: 02 4229 3661

C Olge
Senior Consultant
Boxhill Institute of TAFE
PO Bag 2014
Box Hill VIC 3128

Ph: 03 9286 9263
Fax: 03 9286 9326

D Caulfield
NMITAB
PO Box A2616

Ph: 02 9286 1433
Fax: 02 9264 9367

Sydney South NSW 2000

Mr K Chilman
Inspector of Mines
NSW Dept of Mineral Resources (DMR)
PO Box 536
St Leonards NSW 2065
Ph: 02 9901 8456
Fax: 02 9901 8468

Ian Ridoutt
Crushed Stones Assn of Aust (WA)
PO Box 138
Gosnells WA 6110
Ph: 08 9391 6400
Fax: 08 9391 6405

Neil Dunbar
CSR Readymix
PO Box 138
Gosnells WA 6110
Ph: 08 9391 6400
Fax: 08 9391 6405

ATTACHMENT C

Consultations with State/Territory Recognition Authorities

CONSULTATION WITH STATE/TERRITORY RECOGNITION AUTHORITIES

These consultations were in regard to guidance relating to the assessment system

Western Australia

Mary Ballantine
Manager Accreditation & Recognition
Western Australian Department of Training
Ph: 08 92356102
Fax: 08 92356142

Jill Kawalilak
Project Officer
Western Australian Department of Training
Ph: 08 92356102
Fax: 08 92356142

Wayne Muller
Manager Training Products
Western Australian Department of Training
Ph: 08 92356322
Fax: 08 92356142

Victoria

Christopher Stewart
Curriculum Co-ordination and Accreditation Branch
Office of Training and Further Education
Ph: 03 92682238
Fax: 03 92683116

Queensland

Phil Mayton
Recognition and Review Branch
Department of Training and Industrial Relations Queensland
Ph: 07 32475477sw
Fax: 07 32379960

Trish McPhee
Project Officer
Recognition and Review Branch
Department of Training and Industrial Relations Queensland
Ph: 07 32475477sw

New South Wales

Jill Gientzotis
Director Recognition Services
NSW Department of Education and Training Co-ordination
Ph: 02 92445335
Fax: 02 92445344

Tasmania

Paula Steenholdt
Snr Recognition Consultant
Tasmanian State Training Authority
Ph: 03 62337982
Fax: 03 62344358

ATTACHMENT D

Consultation for Industry Validation of Training Package

Information not supplied at time of publication