

## Level 5 Award in Managing Reservoir Safety in the Water and Other Industries

**Qualification Specification** 

## **Contents**

	Page
Introduction	3
Qualification profile	3
Qualification structure	4
Centre requirements	4
Support for candidates	5
Assessment	5
Internal quality assurance	6
Adjustments to assessment	6
Results enquiries and appeals	6
Certification	6
Learning Outcomes and Assessment Criteria	7

#### Introduction

The **Level 5 Award in Managing Reservoir Safety in the Water and Other Industries** is aimed at candidates who wish to demonstrate their knowledge and understanding of how to manage reservoir safety within the water or other industries.

The Regulated Qualifications Framework (RQF) is the single framework for regulated qualifications, the regulatory body for this qualification is the Office of Qualifications and Examinations Regulation (Ofqual). This qualification is accredited onto the RQF.

#### **Qualification Profile**

Qualification title ProQual Level 5 Award in Managing Reservoir Safety in

the Water and Other Industries

Ofqual qualification number 603/4174/9

Level 5

Total qualification time 20 hours

Credits 2 credits

Guided learning hours 16

Pass or fail

Assessment Assessed and verified by centre staff

External quality assurance by ProQual verifiers

Qualification start date 25/2/2019

Qualification end date

## **Entry Requirements**

There are no formal entry requirements for this qualification. Centres should carry out an **initial assessment** of candidate skills and knowledge to identify any gaps and help plan the assessment.

#### **Qualification Structure**

To achieve the qualification candidates must complete ONE Mandatory unit.

Unit Reference Number	Unit Title	Credits	Unit Level	GLH
K/617/4769	Managing Reservoir Safety in the Water and Other Industries	2	5	16

## **Centre Requirements**

Centres must be approved to offer this qualification. If your centre is not approved please complete and submit form **ProQual Additional Qualification Approval Application**.

#### Staff

Staff delivering this qualification must be appropriately qualified and occupationally competent.

#### **Assessors/Internal Quality Assurance**

For each competence-based unit centres must be able to provide at least one assessor and one internal quality assurance verifier who are suitably qualified for the specific occupational area. Assessors and internal quality assurance verifiers for competence-based units or qualifications will normally need to hold appropriate assessor or quality assurance verifier qualifications, such as:

- ProQual Level 3 Certificate in Teaching, Training and Assessing
- Award in Assessing Competence in the Work Environment
- Award in Assessing Vocationally Related Achievement
- Certificate in Assessing Vocational Achievement
- Award in the Internal Quality Assurance of Assessment Processes and Practices
- Certificate in Leading the Internal Quality Assurance of Assessment Processes and Practices

## **Support for Candidates**

Materials produced by centres to support candidates should:

- enable them to track their achievements as they progress through the learning outcomes and assessment criteria;
- provide information on where ProQual's policies and procedures can be viewed;
- provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence

#### **Assessment**

Candidates must demonstrate the level of knowledge and/or skills described in the units. Assessment is the process of measuring a candidate's knowledge and understanding against the standards set in the qualification.

Each candidate is required to produce evidence which demonstrates their achievement of all of the learning outcomes and assessment criteria for each unit.

Evidence could include:

- observation report by assessor
- assignments/projects/reports
- professional discussion
- witness testimony
- record of oral and written questioning
- Recognition of Prior Learning

**Learning outcomes** set out what a candidate is expected to know, understand or be able to do. **Assessment criteria** specify the standard a candidate must meet to show the learning outcome has been achieved.

Learning outcomes and assessment criteria for this qualification can be found from page 7 onwards.

To achieve this qualification all candidates must produce evidence which demonstrates their achievement of all of the assessment criteria.

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.

Simulations are permitted where candidates, during the course of their qualification, are not able to provide evidence from naturally occurring events.

## **Internal Quality Assurance**

An internal quality assurance verifier confirms that assessment decisions made in centres are made by competent and qualified assessors, that they are the result of sound and fair assessment practice and that they are recorded accurately and appropriately.

## **Adjustments to Assessment**

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements. Centres should contact ProQual for further information or queries about the contents of the policy.

## **Results Enquiries and Appeals**

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

#### Certification

Candidates who achieve the requirements for qualifications will be awarded:

- A certificate listing the units achieved, and
- A certificate giving the full qualification title -

## ProQual Level 5 Award in Managing Reservoir Safety in the Water and Other Industries

#### Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the requirements for a qualification. All certificates will be issued to the centre for successful candidates.

#### **Unit certificates**

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

#### Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement certificates.

## **Learning Outcomes and Assessment Criteria**

# Unit K/617/4769 Managing Reservoir Safety in the Water and Other Industries

Learning Outcome - The learner will:			Assessment Criterion - The learner can:
1	Understand the regulatory requirements of reservoir safety	1.1	Demonstrate an understanding of the Reservoir Safety Act 1975 and subsequent amendments, including the Flood and Water Management Act 2010
		1.2	Explain the Statutory requirements of the Reservoir Safety Act
		1.3	Explain the role of the Reservoir Owner, Supervising Engineer and Inspecting Engineer
		1.4	Explain the monitoring and recording requirements to ensure reservoir safety systems are undertaken
	1.5	Explain the procedures available to request an inspection be carried out to ensure reservoir safety	
2	2 Understand reservoir types, construction details and respective	2.1	Explain the types of reservoirs, their design and construction features.
	safety requirements	2.2	Identify the key features of reservoir design
		2.3	Explain the appropriate monitoring requirements for each type of reservoir
		2.4	Explain basic hydrology in terms of catchment characteristics
		2.5	Explain basic hydraulic theory used in reservoir engineering
3	Understand monitoring and maintenance procedures to ensure	3.1	Explain the different types of instrumentation used in monitoring reservoir performance.
	reservoir safety	3.2	Explain the key features in monitoring methods used reservoir safety
		3.3	Explain the importance of recording, collating and archiving monitoring information and data to provide evidence of monitoring being undertaken
		3.4	Explain the role of the Supervising Engineer, the Inspecting Engineer and the Enforcement authority (Environment Agency) in reservoir safety
		3.5	Explain key features of maintenance in effective reservoir safe
		3.6	Explain the process to identify and engage an appropriate engineer from the "all reservoirs panel" for Dam supervision, Inspection and/or construction works

Le	arning Outcome - The learner will:		Assessment Criterion - The learner can:
	Understand risks and hazards associated with reservoirs	4.1	Describe the terms 'hazard' and 'risk' in terms of reservoir safety
		4.2	Identify key risks in reservoir safety
		4.3	Demonstrate a knowledge of Quantitative Risk Assessment techniques used in reservoir safety assessments
		4.4	Explain 'On site' and 'Off site' emergency plans
		4.5	Explain emergency draw-down plans
		4.6	Discuss the potential repercussions to a company of one of their reservoirs failing an inspection, what issues and consequences can arise (of varying degrees)
		4.7	Discuss some of the potential failures, problems and issues that inspections can identify with reservoirs and their operation and the potential consequences if left unresolved
5	5 Understand the requirements and procedures for Reservoir Safety	5.1	Explain the basic requirements of reservoir safety supervision
supervision, inspections and Certificates		5.2	Explain the requirements of reservoir safety inspections
		5.3	Explain the need and procedures in place to enable escalation for an inspection by a qualified civil engineer
	5.4	Explain the certification of reservoir inspections and their validity periods	

### **Assessment**

There must be valid, authentic and sufficient for all the assessment criteria. However, one piece of evidence may be used to meet the requirements of more than one learning outcome or assessment criterion.



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