



Australian Government

Department of Education, Employment and Workplace Relations

SRCAQU004B Maintain pool water quality

Release: 1

SRCAQU004B Maintain pool water quality

Modification History

Not applicable.

Unit Descriptor

This unit has been developed for the Community Recreation Industry Training Package and covers the skills and knowledge to maintain the water quality of swimming pools/aquatic facilities according to health standards.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

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Element	Performance Criteria
1 Ensure regular water quality tests are conducted according to regulations	<p>1.1 Monitor routine pool water tests results to ensure they are completed in compliance with public health regulatory requirements and facility procedures</p> <p>1.2 Develop and implement schedules for pool water microbiological testing to meet the public health regulatory requirements</p>
2 Apply principles of pool water quality to adjust disinfectant levels and water balance	<p>2.1 Anticipate bather loading and implement corrective actions to maintain pool water quality</p> <p>2.2 Develop and implement processes for the use of chemicals for maintaining disinfectant levels and chemical balance of pool water to meet public health regulatory requirements</p> <p>2.3 Carry out water treatment procedures in accordance with the aquatic facility's operating plan for the treatment of pool water</p> <p>2.4 Observe safe handling of chemicals</p> <p>2.5 Undertake and meet calculation of the amount of chemical required to correct chemical imbalances in pool water public health regulatory requirements</p> <p>2.6 Use chemical dosing equipment for the treatment of pool water in accordance with the manufacturer's specifications and occupational health and safety requirements</p>
3 Record action taken	<p>3.1 Record pool water test results and corrective actions are recorded to aquatic facility specifications and meet public health regulatory requirements</p>

Required Skills and Knowledge

Not applicable.

Evidence Guide

The Evidence Guide identifies the critical aspects, knowledge and skills to be demonstrated to confirm competence for this unit. This is an integral part of the assessment of competence and should be read in conjunction with the Range Statements

Critical aspects of evidence to be considered

Assessment must confirm the ability integrated demonstration of all elements of competency and their performance criteria, in particular the ability to

develop and implement processes to ensure regular water quality tests are conducted according to public health regulatory requirements

develop and implement processes for the use of chemicals for maintaining the correct chemical balance of pool water as governed by public health regulatory requirements

implement organisation policy and procedures

correctly anticipate pool water loadings and take appropriate corrective action

Interdependent assessment of units

This unit must be assessed after attainment of competency in the following unit(s)

Nil

This unit must be assessed in conjunction with the following unit(s)

Nil

For the purpose of integrated assessment, this unit may be assessed in conjunction with the following unit(s)

SRCAQU002B Operate aquatic facility plant and equipment

Required knowledge and skills

Required knowledge

Procedures and processes for water testing and treatment

Pool water chemistry

Relevant occupational health and safety, government and industry regulations and

legislative requirements
Chemical handling procedures
Backwash procedures
Filtration processes
Plant and equipment operation
Plant and equipment manufacturer's specifications
Isolation procedures
Standard of cleaning required
Standard maintenance procedures
Types of supplies available for cleaning and maintenance
Required skills
First aid treatment procedures related to pool water chemical accidents
Communication/interpersonal skills
Identifying hazards/unclean area/pollution
Using cleaning materials and equipment

Resource implications

Physical resources - assessment of this competency requires access to
a real or simulated work environment
appropriate documentation and resources normally used in the workplace
an aquatic facility
an effectively simulated work environment or industry approved training centre
Human resources - assessment of this competency will require human resources consistent with those outlined in the Assessment Guidelines. That is, assessors (or persons within the assessment team) must
be competent in this unit but preferably be competent in the unit at the level above
be current in their knowledge and understanding of the industry through provision of evidence of professional activity

in the relevant area

have attained the mandatory competency requirements for assessors under the Australian Quality Training Framework (AQTF) as specified in Standard 7.3 of the **Standards for Registered Training Organisations**

Consistency in performance

Competence in this unit must be assessed over a period of time in order to ensure consistency of performance over the Range Statements and contexts applicable to the work environment

Context for assessment

This unit of competency must be assessed in the context of community recreation in Australia. For valid and reliable assessment the community recreation activity should closely replicate the work environment. The environment should be safe, with the hazards, circumstances and equipment likely to be encountered in a real workplace

This unit of competence should be assessed through the observation of processes and procedures, oral and/or written questioning on required knowledge and skills and consideration of required attitudes

Where performance is not directly observed and/or is required to be demonstrated over a "period of time" and/or in a "number of locations", any evidence should be authenticated by colleagues, supervisors, clients or other appropriate persons

KEY COMPET ENCIES

Collect, Analyse & Organise Information	Communicate Ideas & Information	Plan & Organise Activities	Work with Others & in Teams	Use Mathematical Ideas & Techniques	Solve Problems	Use Technology
2	1	2	1	2	2	2

These levels do not relate to the Australian Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

The three levels of performance (1, 2 and 3) denote the level of competency required to perform the task:

Use routine approaches

Select from routine approaches

Establish new approaches

Collecting, analysing and organising information -

Communicating ideas and

**informatio
n -**

**Planning
and
organising
activities -**

**Working
with teams
and others
-**

**Using
mathemati
cal ideas
and
techniques
-**

**Solving
problems -**

**Using
technology
-**

Please refer
to the
Assessment
Guidelines
for advice
on how to
use the Key
Competenci
es.

Range Statement

Range Statements

The Range Statements provide advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. The Range Statements relate to the unit as a whole and helps facilitate holistic assessment. In addition, the following variables may be present for this particular unit of competency

RANGE STATEMENT

CATEGORIES

Pool water microbiological testing

may include determinations of
standard plate count
coliform count
pseudomonas aeruginosa
legionella
staphylococcus
cryptosporidium

Pool water quality

refers to
pool water that is maintained within the
limits set by public health regulations for
microbiological, disinfectant, pH and clarity
levels

Public health regulatory requirements

may vary according to state/territory
regulations but includes

Health Act

infectious diseases Regulations

Dangerous goods Act and Regulations

poisons Act

metropolitan water supply, sewerage and
drainage by-laws

Occupational Health and Safety Act and Regulations

environment legislation

local government regulations

Routine pool water tests

[all categories]
free chlorine

total bromine
total chlorine
combined chlorine
pH
alkalinity
cyanuric acid
calcium hardness
total hardness
temperature

Water treatment procedures

disinfection with chemicals or procedures including
chlorine gas
sodium hypochlorite
calcium and lithium hypochlorite
electrolytic generation of chlorine
bromine
sodium bromide with hypochlorite or ozone activator
chlorine dioxide
superchlorination
shock dosing
dechlorination
chlorine stabilisation with cyanuric acid
control of algae
ozonation
ultraviolet radiation
ph balance
alkalinity adjustments
calcium and total hardness adjustments
lowering total dissolved solids
pool water filtration and recirculation
backwashing
manual removal of visible contaminant

Unit Sector(s)

Not applicable.