

**About Water WSQ**

The Water Workforce Skills Qualification (WSQ) or Water WSQ is a national skills training system that is jointly developed by PUB, the national water agency, Singapore Water Association and Singapore Workforce Development Agency.

The Water Management Certification Programme is a series of training programmes to equip the water industry with the technical skills and capabilities to manage the various aspects of the water cycle, from collection of water to the production, distribution and its reclamation into NEWater. The programme is designed to cater specifically to different job levels including the operator, technician, supervisor and engineer levels. The alignment of the programme to the WSQ system will not only raise the skill and competency level of water professionals, but also help them gain a competitive edge in overseas projects. The first module on Used Water Treatment Operator will roll out first and the subsequent modules will be developed.

**Course Title:**

Workforce Skills Qualification (WSQ) Certified Used Water Treatment Operator

**Course Objective:**

To equip participants with a comprehensive skills competency and knowledge to operate an used water treatment facility and infrastructure effectively and efficiently.

**Learner's Profile:**

This course will be useful to operators, engineers and manager who are involved in the water industry.

**Assumed Skills and Knowledge:**

Participants are assumed to

- GCE 'O' Level or equivalent
- Have minimum 1 year of relevant working experience in water industry
- Be able to listen and speak English at a proficiency level
- Be able to read and write English at a proficiency level
- Be able to manipulate numbers at a proficiency level

**Course Date:**

Mar 2010 – May 2010 (2 to 3 days per week)

**Time:**

9am to 5pm

**Course Venue:**

WaterHub

80 Toh Guan Road East

Singapore 608575

**Class Size:**

20 pax (min) 40 pax (max)

**Cost Fee**

SGD 4,960.00 Nett

(A Special discount of 10% will be given to Singapore Water Association Members who registered for the Course)

**WDA's Funding for WSQ Programme**

- 90% of the cost fee will be supported under WDA's Funding. Participants will only need to pay the 10% nett course fee.
- For employees aged 40 years and above with 'A' levels and below qualifications, it is 90% of hourly basic salary capped at \$4.5/hr. For other employees, it is 80% of hourly basic salary capped at \$4/hr.'
- For companies which would like to claim for the absentee payroll, they will need to register on the SRP website ([www.srp.org.sg](http://www.srp.org.sg)) to apply for the absentee payroll funding at least 1 day before the course starts.
- For companies which do not have an existing account with SRP, they will need to apply for the account through SRP website at least 1 week before the course starts. Upon receiving the SRP account, they can then apply for the absentee payroll funding for the course.
- Government entities are not entitled to absentee payroll funding.
- The training provider (i.e. PUB) will receive a notification at the end of the training, to verify that the trainees have achieved at least 75% attendance and are certified competent in the assessment, before the absentee payroll will be disbursed to the company.
- WDA's Funding is applicable to Singapore Citizen or Singapore Permanent Resident only.

**Accreditation:**

This competency-based programme is certified by Singapore Workforce Development Agency & PUB. PUB is the training provider for the Singapore Used Water Treatment Operator Certification Programme. PUB is also the Approved Training Organisation under the Singapore Workforce Skills Qualification (WSQ) System. WSQ is a national credentialing system for the adult workforce; it is the foundation of the Continuing Education & Training infrastructure in Singapore. WSQ is based on competency standards developed and validated by industries, and further benchmarked against international practices.

**Certification:**

Participants will be awarded the Workforce Skills Qualification (WSQ) Certificate in Used Water Treatment if they meet 75% attendance rate as well as passing all assessments required by the programme.

**Mode of Assessment:**

Written Test and Practical Session

**Course Registration:**

Email: [cecilia@swa.org.sg](mailto:cecilia@swa.org.sg)

Registration will be on a first-come first served basis.

**Course Enquiries:**

Email: [jolynn\\_toh@pub.gov.sg](mailto:jolynn_toh@pub.gov.sg)

**Module Titles:**

Module 1: Operate Safely in Used Water Treatment Plant

Module 2: Monitor and Operate Liquid Stream Facility in Used Water Treatment Plant

Module 3: Perform Sampling of Used Water

Module 4: Perform Basic Laboratory Tests for Used Water

Module 5: Monitor and Operate Solid Stream and Odour Control Facilities in Used Water Treatment Plant

Module 6: Operate and Perform Minor Maintenance for Mechanical and Electrical Equipment in Used Water Treatment Plant

Module 7: Apply Quality Systems

Module 8: Apply Teamwork in the Workplace

**Course Outline:****Module 1: Operate Safely in Used Water Treatment Plant**

This module provides generic knowledge and application skills in operating safely in used water treatment plant. It covers the safety requirements in the Workplace Safety and Health Act, organisational safety procedures, use of Personal Protective Equipment (PPE) and safety equipment, and emergency preparedness response plan. This unit provides learners the opportunity to apply, demonstrate and practise the knowledge and skills learnt to operate safely in used water treatment plant through classroom and practical sessions.

On completion of this module, learners will have the generic knowledge and application skills to apply Workplace Safety and Health practices and organisational safety procedures to operate safely in used water treatment plant.

**Module 2: Monitor and Operate Liquid Stream Facility in Used Water Treatment Plant**

This module provides generic knowledge and application skills in monitoring and operating the liquid stream facility in used water treatment plant. It covers monitoring and recording used water parameters, operating screening and grit removal process, operating sedimentation process, operating activated sludge process and operating nitrogen removal process. This unit provides learners the opportunity to apply, demonstrate and practise the skills learnt to monitor and operate the liquid stream of used water treatment process through classroom and practical sessions.

On completion of this module, learners will have the generic knowledge and application skills to monitor and record used water parameters, operate screening and grit removal, sedimentation, activated sludge and nitrogen removal processes.

### **Module 3: Perform Sampling of Used Water**

This module provides generic knowledge and application skills in performing sampling of used water in used water treatment plant. It covers the theory and practical aspects of preparation, sampling activities and post-sampling activities. This unit provides learners the opportunity to apply, demonstrate and practise the knowledge and skills learnt to perform sampling of used water through classroom and practical sessions.

On completion of this module, learners will have the generic knowledge and application skills to carry out preparation, sampling and post-sampling activities.

### **Module 4: Perform Basic Laboratory Tests for Used Water**

This module unit provides generic knowledge and application skills in performing basic laboratory tests for used water. It covers the theory and practical aspects of preparation, testing, analysis and documentation phases in performing laboratory tests. It also includes the handling and safety aspects. This unit provides learners the opportunity to apply, demonstrate and practise the knowledge and skills learnt to perform laboratory tests through classroom and laboratory sessions.

On completion of this module, learners will have the generic knowledge and application skills to safely handle, prepare, test, analyse and document laboratory tests.

### **Module 5: Monitor and Operate Solid Stream and Odour Control Facilities in Used Water Treatment Plant**

This module provides generic knowledge and application skills in monitoring and operating solid stream and odour control treatment process. It covers monitoring and recording sludge parameters, operating sludge thickening process, operating sludge digestion process, operating sludge de-watering process and operating odour control process. This unit provides learners the opportunity to apply, demonstrate and practise the skills learnt to monitor and operate solid stream and odour control treatment process through classroom and practical sessions.

On completion of this module, learners will have the generic knowledge and application skills to monitor and record sludge parameters, operate sludge thickening, sludge digestion, sludge de-watering and odour control processes.

## **Module 6: Operate and Perform Minor Maintenance for Mechanical and Electrical Equipment in Used Water Treatment Plant**

This module provides the knowledge and application skills to operate mechanical and electrical equipment in used water treatment plant. It covers the basic operation and identification of necessary maintenance of mechanical and electrical equipment in used water treatment plant. It is intended for operational personnel working in used water treatment plant.

This module provides learners the opportunity to apply, demonstrate and practise the skills learnt to operate mechanical and electrical equipment through classroom and practical sessions. On completion of this unit, learners will have the generic knowledge and application skills to operate and identify the necessary maintenance required for mechanical and electrical equipment in used water treatment plant.

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## **Module 7: Apply Quality Systems**

On completion of this unit, learner will have the knowledge and application skills in carrying out planning and carrying out daily work to meet quality system requirements as well as maintaining and improving work quality.

## **Module 8: Apply Teamwork in the Workplace**

On completion of this unit, learners will have the skills and knowledge in working as a team and participating in team activities in their work area.