

Course Title:

Workforce Skills Qualification (WSQ) Certified Wastewater Treatment Operator

Course Objective:

To equip participants with a comprehensive skills competency and knowledge to operate a wastewater 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

Date of Commencement:

15 March 2010

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

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) 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 Wastewater 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 Wastewater 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

Module Titles:

Module 1: Operate safely in wastewater treatment plant

Module 2: Monitor and operate liquid stream facility in wastewater treatment plant

Module 3: Perform sampling of wastewater

Module 4: Perform basic laboratory tests for wastewater

Module 5: Monitor and operate solid stream and odour control facilities in wastewater treatment plant

Module 6: Operate and perform minor maintenance for mechanical and electrical equipment in wastewater treatment plant

Module 7: Apply quality systems

Module 8: Apply teamwork in the workplace

Course Outline:

Module 1: Operate safely in wastewater treatment plant

This module provides generic knowledge and application skills in operating safely in wastewater 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 wastewater 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 wastewater treatment plant.

Module 2: Monitor and operate liquid stream facility in wastewater treatment plant

This module provides generic knowledge and application skills in monitoring and operating the liquid stream facility in wastewater treatment plant. It covers monitoring and recording wastewater 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 wastewater 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 wastewater parameters, operate screening and grit removal, sedimentation, activated sludge and nitrogen removal processes.

Module 3: Perform sampling of wastewater

This module provides generic knowledge and application skills in performing sampling of wastewater in wastewater 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 wastewater 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 wastewater

This module unit provides generic knowledge and application skills in performing basic laboratory tests for wastewater. 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 wastewater 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, sludged de-watering and odour control processes.

Module 6: Operate and perform minor maintenance for mechanical and electrical equipment in wastewater treatment plant

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

On completion of this module, learners will have the generic knowledge and application skills to operate and identify the necessary maintenance required for mechanical and electrical equipment in wastewater treatment plant.

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