

COGWT5 – SQA Unit Code (H40S 04)

Apply a water treatment programme for effluent treatment systems



Overview

This unit is for those involved in:

- 1 producing water treatment programme for effluent treatment systems
- 2 producing control measures
- 3 performance monitoring
- 4 identifying and progressing corrective actions
- 5 investigating the cause of faults and errors

Previous Version

None

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Performance criteria

- You must be able to:*
- P1 work safely at all times, complying with health and safety procedures in line with company policies.
 - P2 produce a water treatment programme to meet system requirements and regulatory requirements utilising design models
 - P3 produce a programme of control measures to maintain the efficacy of the treatment programme in accordance with company operating procedures
 - P4 identify and assess system conditions relevant to the water treatment programme
 - P5 assess the performance of the treatment programme for effluent treatment systems in accordance with company operating procedures
 - P6 investigate faults and errors in the system in accordance with company operating procedures
 - P7 identify and progress a programme of corrective actions for effluent treatment systems in accordance with company operating procedures
 - P8 record information and write report using company documentation in accordance with company operating procedures
 - P9 provide the documentation to the relevant people

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Knowledge and understanding

You need to know and understand:

- K1 what your personal responsibilities with regard to health and safety in the working area are
- K2 what your legal responsibility for your own health and safety, and the health and safety of others is
- K3 what working practices ensure that the working environment is conducive to good health
- K4 what the approved codes of practice/working practices are and why it is important to follow them
- K5 how and when to complete a work task risk assessment
- K6 when specific site requirements are in place and what to do to comply with them
- K7 the different types of effluent treatment systems
- K8 problems encountered in the systems
- K9 water chemistry and microbiology applicable to effluent treatment systems
- K10 what regulatory requirements apply
- K11 company standard operating procedures
- K12 which treatment methods are available and can be used
- K13 what control measures can be used for the water treatment programme
- K14 what system conditions are relevant to the water treatment programme
- K15 how to apply your company's treatment processes
- K16 how to interpret schematic diagrams
- K17 how to interpret survey outputs
- K18 efficacy of the treatment programme and regulatory compliance
- K19 how to follow a performance monitoring programme
- K20 which methods for performance monitoring are available
- K21 what to do if performance is unsatisfactory
- K22 what corrective actions you can take in accordance with company operating procedures

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- K23 who to report the information to
- K24 the range of potential corrective actions that may be employed
- K25 which corrective action to follow
- K26 what documentation to use
- K27 how to complete the documentation
- K28 who the relevant people are
- K29 how to provide the documentation

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Additional Information

Glossary

Effluent treatment systems

Includes process effluent, industrial effluent, de-watering, recovery and recycling processes

Water treatment programmes

Can include for any water system: chemical and non chemical processes, monitoring and inspection, sampling, equipment provision and servicing, legionella risk assessment, cleaning operations, remedial engineering works, other products and services associated with water systems

Regulatory requirements

Includes relevant health, safety and environmental regulations, COSHH, Codes of Practice, British, European and International standards, site procedures

Company operating procedure

Includes company requirements, instructions and method statements

Documentation

Includes analysis/report sheets, log book records

Relevant people

As defined in the programme design, log book, company procedures

Methods of treatment

Physical, chemical, microbiological, mechanical, monitoring, sampling

Working practices

Permit to work, confined space working, working at heights, manual handling, PPE, COSHH etc

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Problems encountered

Chemical, settlement/flotation, dispersion, fouling, microbiological, mechanical, environmental, odour

System conditions

Physical, engineering, chemical, microbiological conditions

Control measures

Product level, chemical balance, microbiological populations, suspended solids, metals, foam, odour, physical, engineering, monitoring, inspection

Water chemistry

The chemistry involved with the provision, use and treatment of effluent treatment processes

Design model

Products, specification, parameters, limitations, installation requirements, service standards including company requirements, instructions, method statements, codes of practice, British, European and International standards

Survey outputs

Sample and test results, survey forms, mechanical specifications, system objective

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