

Overview

This unit is for those with responsibility for carrying out on site analysis activities using prescribed standard operating procedures to perform analysis. Such analysis requires limited judgement by the user and involves following standard operating procedures.

The equipment to be used, the conditions necessary for analysis and the specific operations to be performed are defined in written instructions. Responsibility is limited to carrying out the defined procedure and recording the result. Any deviations from the standard operating procedures are referred to others for action.

This unit deals with the following:

- 1 preparation for analysis
- 2 checking equipment and conditions for analysis
- 3 identifying and preparing a test sample
- 4 conducting analysis safely
- 5 recording analysis results

During this work you must take account of the relevant worksite operational requirements, procedures and safe working practices as they apply to you.

Previous Version

Adapted from Unit C15 of Polymer Processing and Related Operations NOS – version November 2004.

NB This unit is a tailored version of a LATA unit produced by ST & M Council, which was originally designated Unit 2.03.

COGWT2 – SQA Unit Code (H400 04)

Analyse samples from water systems on site

Performance criteria

You must be able to:

- P1 work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines
- P2 identify tests to be completed in accordance with the programme control measures
- P3 check that all the required resources are available and correctly prepared in accordance with company operating procedures
- P4 ensure that testing equipment is in a serviceable condition and has been calibrated correctly
- P5 identify any unserviceable test equipment and report according to agreed procedure
- P6 establish that the relevant controlled conditions for testing are confirmed
- P7 ensure that the correct sample has been selected
- P8 handle and use test samples safely in accordance with company operating procedures
- P9 ensure that the equipment used to prepare the sample is operated in accordance with company operating procedures
- P10 ensure that you establish the identity of the sample and check it's integrity
- P11 confirm the relevant controlled conditions for sample preparation are present
- P12 identify and store test samples correctly until required
- P13 ensure you take into account the effects of the test on the immediate environment
- P14 prepare and test samples in accordance with company operating procedures
- P15 record any deviations from set procedure using documentation and take the action appropriate for the deviation
- P16 deal with any waste material in accordance with company operating procedures
- P17 clean, store and maintain any equipment and materials that are to be re-used
- P18 handle and dispose of safely and correctly any other equipment and materials
- P19 perform calculations following set procedures

COGWT2 – SQA Unit Code (H400 04)

Analyse samples from water systems on site

- P20 deal with any waste material in accordance with company operating procedures
- P21 clean, store and maintain any equipment and materials that are to be re-used
- P22 handle and dispose of safely and correctly any other equipment and materials
- P23 perform calculations following set procedures

Analyse samples from water systems on site

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 how and where to identify programme design and control measures
- K8 what tests are to be completed
- K9 what resources are required and available
- K10 how to prepare, check, calibrate and use test equipment in accordance with company operating procedures
- K11 how to identify and report defective test equipment
- K12 when and how to take action in the event of deviations from resources
- K13 why controlled testing conditions are important
- K14 how to control testing conditions
- K15 what methods of sample preparation to use
- K16 what the safe storage methods for test samples that should be used are
- K17 how to check integrity and identity of samples
- K18 how to prepare and test samples in accordance with company operating procedures
- K19 how to calculate test results in accordance with company operating procedures
- K20 why it is important to clean, store and maintain any equipment and materials that are to be re-used

COGWT2 – SQA Unit Code (H400 04)

Analyse samples from water systems on site

- K21 what documentation to use and why it is important to complete it accurately and legibly
- K22 what methods to use for the safe disposal of materials and waste
- K23 how to present the test result information and who the relevant people are
- K24 why it is important to leave the workplace clean and tidy

Analyse samples from water systems on site

Additional Information

Glossary

Adjust

Includes adjustment of pumps and controls, cleaning of sensors and probes, removal of air locks, cleaning of supply and delivery valves, pump priming

Regulations and guidelines

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

Resources

Includes equipment manuals, standard operating procedures, tools, test equipment

Equipment

Includes dosing pumps, controllers, valves, probes, sensors

Company operating procedures

Includes company requirements, instructions and method statements

Programme design

The programme of water treatment for the specific system including chemical, microbiological, mechanical, physical

Control parameters

Physical, engineering, chemical, microbiological, monitoring, inspection

Tests

Includes chemical, microbiological, mechanical, physical

COGWT2 – SQA Unit Code (H400 04)

Analyse samples from water systems on site

Developed by Cogent SSC

Version number 1

Date approved January 2012

Indicative review date January 2015

Validity Current

Status Tailored

Originating organisation Cogent SSC

Original URN 2.03

Relevant occupations Engineering and manufacturing technologies; Manufacturing technologies; Process, Plant and Machine Operatives; Process Operatives

Suite Water Treatment Management

Key words Water; treatment; analyse; samples; systems; site