

EUSTPO07 - SQA Unit Code HG3D 04

Monitor and maintain treatment processing at optimum performance



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- Overview This unit is about setting operational objectives and parameters and monitoring them to ensure they are maintained throughout the processing cycle.

Performance criteria

You must be able to:

Establish the conditions for optimum plant performance

- P1 translate the employer's specification into objectives for quality standards and flow
- P2 set the parameters for plant efficiency, financial performance, and breakdown occurrence
- P3 evaluate periodically the operational and maintenance objectives and parameters
- P4 plan the facilities in the work environment so they are conducive to efficient work
- P5 use the regulatory requirements and the employer's specification as the basis for all aspects of the performance of the process facilities
- P6 monitor the plant for optimum performance and adjust maintenance to ensure it conforms continually to regulatory requirements and the employer's specification

You must be able to:

Collect and use information to plan operational maintenance

- P7 analyse plant records and maintenance schedules to decide the equipment and instrumentation which require maintenance
- P8 incorporate information from inspections and investigations within the maintenance schedules
- P9 assess plant priorities and problems and hazards arising from equipment out of service to inform the maintenance plans
- P10 produce maintenance schedules which are accurate, meet the specification and plant operating instructions, and reflect safe working practices
- P11 take account of scheduled outages of other in-company plants when producing plans
- P12 produce plans which make effective use of physical labour availability

You must be able to:

Monitor operational maintenance

- P13 collate data for monitoring from schedules and specifications and compile the information into operational maintenance schedules
- P14 reconcile progress of the maintenance against other plant priorities
- P15 organise unscheduled operational maintenance promptly
- P16 monitor the maintenance work carried out against maintenance schedules, equipment and process specifications, and plant operating instructions

You must be able to:

Communicate data and information to colleagues

- P17 use a range of methods to communicate with the work team and other workers on the site about operational activities
- P18 provide the designated people with the maintenance schedule, risk assessments, permits to work and other documentation and instructions they need to carry out the scheduled work in the manner specified in the plant operating instructions
- P19 make details of planned outages available in good time to workers on site
- P20 provide instructions for unscheduled maintenance requirements to the designated maintenance personnel in a way which is fit-for-purpose
- P21 use verbal and other communication methods which suit the task to convey explicitly what is required to be done
- P22 ensure discrepancies arising from investigations are recorded promptly and by the methods laid down in the plant operating instructions
- P23 maintain up-to-date data audit trails and make sure they are accessible

You must be able to:

Resolve problems affecting treatment performance

- P24 minimise the adverse effects on the process which results from taking equipment or plant out of use
- P25 arrange for investigations to be carried out promptly where problems arise
- P26 rectify maintenance deficiencies which arise from using the monitoring data

Knowledge and understanding

You need to know and understand:

General

- K1 UK and EC legislation, standards, codes of practice, and industry regulations for health, safety, and hygiene
- K2 UK and EC legislation, standards, codes of practice, and industry regulations for environmental protection and measures to reduce harmful emissions and substances
- K3 dealing with statutory inspectorates
- K4 dealing with emergency situations
- K5 safe working practices when dealing with equipment, instrumentation and environment
- K6 maintaining safety – smoking, eating, drinking and drugs
- K7 duty of care
- K8 protecting people and the environment from pollutants both inside and outside the workplace
- K9 personal conduct and behaviour and responsibilities towards colleagues and the general public
- K10 the role and purpose of data audit trails in quality assurance, health and safety and regulatory requirements

You need to know and understand:

Treatment processes

- K11 keeping up-to-date with changes in legislation, standards, and codes of practice
- K12 determining the maintenance needs of the process plant, equipment and environment
- K13 planning and interacting effectively with other sites within the company regarding outages and effects on the site and use of components or the site itself
- K14 satisfying the maintenance needs of the process, plant and environment
- K15 making plant and equipment available for maintenance whilst maintaining the process at the predetermined level of performance
- K16 assessing the effectiveness of maintenance work carried out
- K17 assessing the effect of plant and equipment breakdown
- K18 minimising the effects of broken down plant and equipment on the process
- K19 monitoring the maintenance activities carried out by own staff and other departments' staff
- K20 interpreting the requirements of relevant regulations
- K21 translating the employer's specification for plant performance into operational and maintenance objectives
- K22 assessing the implications of non-compliance with regulations and the

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employer's specification
K23 keeping up-to-date with changes in legislation, standards, and codes of practice

Additional Information

Behaviours

You work in a manner which:

1. is vigilant to possible risks and hazards
2. uses a range of leadership styles appropriate to different people and situations
3. shows pride in achieving high quality work

Glossary

Equipment

mechanical; electrical

Maintenance

for equipment; greasing and lubrication; repacking of glands; replacing simple parts not requiring craftsmen; cleaning accumulations of dirt and debris; basic instrument maintenance

Maintenance

for plant environment condition; cleansing of process facilities and buildings; security systems; fences and gates; structural elements; ground areas; buildings

Plant priorities

process performance; plant availability; final output quality; capacity requirements; reduced human resources

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