
Overview

This Standard is about setting operational objectives and parameters for treatment processing plant and equipment and monitoring them to ensure they are maintained at maximum efficiency throughout the processing cycle.

It includes taking readings, analysing plant records, setting operating parameters, preparing maintenance schedules, assessing priorities and risks, investigating discrepancies in performance and checking the progress of equipment maintenance work.

This Standard is suitable for operators working in water, waste water or sludge treatment processing plants.

Performance criteria

You must be able to:

1. set the operating parameters for plant efficiency, financial performance, and breakdown occurrence
2. take readings from instruments and adjust treatment plant equipment, where necessary, to meet treatment plant output requirements
3. analyse treatment plant output records and maintenance records to decide which equipment and instrumentation require maintenance
4. assess treatment plant output priorities and the problems and hazards arising from out of service equipment and use this to inform the scheduling of maintenance work
5. produce a maintenance schedule in line with organisational requirements
6. monitor the progress of the maintenance against the timescale outlined in the maintenance schedule
7. investigate the reasons for problems arising in meeting the timescale scheduled for completing maintenance
8. rectify maintenance deficiencies
9. provide the designated people with the maintenance schedule and other necessary documentation and instructions required to undertake maintenance work
10. make details of planned equipment shut down available to workers on site
11. ensure discrepancies arising from investigations are recorded in the timescale required, according to organisational requirements
12. maintain and store up-to-date maintenance records that are in an auditable format
13. provide access to maintenance records on request

Knowledge and understanding

You need to know and understand:

1. the organisation's process for managing statutory inspectorates
2. the organisation's process for managing emergency situations
3. the organisation's process for safe working practices when dealing with equipment, instrumentation and environment, including lone working
4. the role and purpose of data audit trails in quality assurance, health and safety and regulatory requirements
5. how to determine and fulfil the maintenance needs of the process plant, equipment and environment
6. how to prepare a maintenance schedule which incorporates information from investigations of treatment plant equipment, reflects safe working practices, takes account of scheduled outages of other treatment plant equipment and makes effective use of physical labour availability
7. the organisation's process for 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
8. the organisation's process for making plant and equipment available for maintenance whilst maintaining the process at the predetermined level of performance
9. the organisation's process for assessing the effectiveness of maintenance work carried out
10. the organisation's process for assessing the effect of plant and equipment breakdown
11. why it is important to minimise the effects of broken-down plant and equipment, or plant or equipment that has been taken out of use, on the treatment process
12. the organisation's process for monitoring the maintenance activities carried out by own staff and other departments' staff
13. the organisation's process for assessing the implications of non-compliance with regulations and the employer's specification
14. why it is important to comply with the organisation's confidentiality policies and cyber security protocols
15. the organisation's process for operating treatment processes when there is a computer system failure
16. the impact of changes in the catchment or distribution system on treatment process operations

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17. why it is important to maintain site security
 18. mechanical and electrical principles for maintenance of treatment process plant and equipment
 19. when to make details of planned outages available to workers on site
 20. what facilities are required to carry out treatment process work
 21. the treatment process that the equipment being worked on relates to, and how the work may impact the performance or efficiency of that process

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Monitor and maintain treatment processing plant and equipment at optimum performance



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