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## Overview

This standard is about determining what repair and maintenance work is needed on treatment processing plant and equipment, organising for it to be carried out and supervising its completion.

It includes assessing the repair and maintenance work required, developing a maintenance schedule, determining the work team to carry out the maintenance, ensuring it is completed to schedule and within safety requirements and resolving issues.

The standard is suitable for supervisors at water, waste water and sludge treatment processing plants.

## Performance criteria

### *You must be able to:*

1. analyse treatment plant output records and maintenance records to decide which plant and equipment require repair or maintenance
2. assess plant operating priorities against the amount and level of wear and damage to plant and equipment and the feasibility and cost-effectiveness of repairs
3. assess treatment plant output priorities and the problems and hazards arising from out of service equipment and use this to inform the scheduling of repair and maintenance work
4. produce a maintenance schedule in accordance with organisational requirements
5. assess whether plant and equipment maintenance can be carried out by treatment operatives or requires a third-party contractor
6. refer recommendations for third-party contractors to the designated person, where authority to make decisions to commission work is outside your responsibility
7. confirm the work team that will carry out the plant and equipment maintenance in accordance with organisational procedures
8. arrange for plant and equipment maintenance work to be carried out in accordance with the required timescale and using safe methods of work
9. arrange for operational maintenance on plant and equipment requiring isolation to be done at a time appropriate to plant use
10. inform affected people when plant and equipment is to be shut down and when to expect plant and equipment to be re-started and re-commissioned
11. monitor the progress of the maintenance against the timescale outlined in the maintenance schedule
12. ensure plant and equipment is restored to specified operational performance in accordance with organisational requirements
13. resolve reported problems with repair and maintenance activity in accordance with organisational procedures and within the limits of your responsibility
14. put temporary arrangements in place to protect the operation of plant and equipment until problems are resolved
15. report problems and seek assistance from designated people for difficulties outside your area of responsibility
16. ensure repair and maintenance records are recorded and stored in accordance

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with organisational procedures

17. provide designated people with access to maintenance records when required
18. follow security procedures in accordance with organisational protocols and policies

## Knowledge and understanding

### *You need to know and understand:*

1. water industry legislation, standards, codes of practice, and industry regulations for health, safety, and hygiene in relation to your job role
2. water industry legislation, standards, codes of practice, and industry regulations for quality and environmental protection and measures to reduce harmful emissions and substances in relation to your job role
3. the organisation's process for safe working practices when dealing with equipment, instrumentation and environment
4. the role and purpose of data audit trails in quality assurance, health and safety and regulatory requirements
5. operation and maintenance methods and procedures and consequences of carrying out maintenance incorrectly and out with limits of responsibility and authority maintenance schedules and related specifications.
6. the organisation's procedures and the factors to be considered for isolation, diverting flows, bypassing treatment process units, operating temporary plant and shut down of plant and equipment
7. typical and unusual problems which may occur during maintenance and how these can be resolved including faulty monitoring equipment or tools, over-runs against agreed timescales, maintenance activities that cannot be met fully or additional defects identified
8. the need for information which is provided to other people relating to maintenance activities
9. the organisation's maintenance records, documentation and authorisation procedures and limits of responsibility and authority
10. the organisation's start-up and re-commissioning procedures
11. the organisation's reporting lines and procedures
12. the factors to be considered when shutting down and isolating plant and equipment and procedures to be used
13. your responsibilities for resolving typical and unusual problems
14. the implications and consequences of carrying out maintenance activities
15. protocols and policies for confidentiality, cyber security and site security and why they are important
16. the importance of storing information according to organisational requirements
17. the way maintenance information is utilised and the implications of its use

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18. information which is provided to other people relating to maintenance activities
  19. what work is required to bring the plant back to the specified condition
  20. how to translate the employer's specification for plant performance into operational and maintenance objectives
  21. how to decide if repairs can be carried out as first-line maintenance or whether a third-party contractor is required

EUSTPC04

Plan and supervise repair and maintenance of treatment processing plant and equipment



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