Assessment Requirements for NWPTRT042 Assess and improve granular media filters

Release: 1

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Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. The candidate must be assessed in as least one type of process listed in the Range of Conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- conducting system investigation and reporting on operational or control system problems
- coordinating filter inspection, sampling and testing
- conducting trend analysis for long-term filter monitoring
- performing calculations to provide data for the analysis and development of options and solutions, including backwash rates and filtration rates
- determining filter run and backwash profiles and times
- interpreting a range of complex and technical documents, including at least one of:
    - regulatory, legislative, licensing and organisational requirements
    - codes and standards
    - specifications
    - organisational policies
- analysing problems and recommending appropriate remedial solutions
- reviewing existing filtration process performance with reference to historical data, initial specifications and differences in incoming water quality
- identifying data deficiencies and organising additional data collection through appropriate sampling and testing
- assessing faults and incident reports and investigating the status of filtration plant components and media
- investigating potential changes to filtration operational processes to identify possible optimisation strategies
- planning trials to test the performance of the determined filtration optimisation options

- compiling recommendation reports

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- principles that form the basis of granular media filtration processes
- types of filters and their range of applications, conditions for use and manufacturers' requirements
- backwash principles and optimisation
- filter run profiles
- the range and performance of filter aids
- filter media properties and selection
- filter inspection and sampling
- principles of filter maintenance, including:
  - filter cleaning
  - double backwashes
  - surface cleaning
  - lancing
  - caustic washing
- filter ripening and turbidity breakthrough
- pilot filters
- pumping and valving systems
- range of appropriate measuring and testing procedures

Assessment Conditions

Competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace, the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037

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