



Australian Government

Assessment Requirements for NWPTRT059 Assess and improve granular media filters

Release: 1

Assessment Requirements for NWPTRT059 Assess and improve granular media filters

Modification History

Release 1. This is the first release of this unit of competency in the NWP National Water Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and includes:

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

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and include knowledge of:

- backwash principles and optimisation
- filter inspection and sampling
- filter media properties and selection
- filter ripening and turbidity breakthrough
- filter run profiles
- filter to waste
- granular media filtration process principles
- principles of filter maintenance including:
 - caustic washing
 - double backwashes
 - filter cleaning
 - lancing
 - surface cleaning
- range and performance of filter aids
- range of appropriate measuring and testing procedures
- relevant legislation, industry standards and workplace policies and procedures relating directly to the control and operation of granular media filters
- risk and hazard management principles
- types of filters and their range of applications, conditions for use and manufacturer requirements
- workplace records and reports

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including legislation, regulations, codes of practice, workplace

procedures and operation manuals.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>