



Australian Government

Assessment Requirements for NWPTRT083 Operate and control aerobic bioreactor processes

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 Assessment Requirements created drawing upon specified assessment information from superseded unit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. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- identifying and correcting operational and control system problems
- taking samples and performing tests:
 - settling tests
 - microscopic observation
 - pH
 - dissolved oxygen
 - nutrient analyses, including at least one of:
 - nitrogen
 - phosphorus
 - temperature
- completing logs and reports
- performing relevant process calculations:
 - hydraulic and organic loading rates
 - recirculation ratios
- monitoring test results
- identifying and reporting faults
- conducting routine plant inspections
- making basic process adjustments:
 - pH correction
 - dissolved oxygen levels

- recirculation rates
- collecting data and completing required documentation

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.

- process layout
- features and components of fixed film aerobic bioreactor systems
- theory of process operation and monitoring
- chemicals used for pH control, odour control, nutrients
- flow measurement
- risk factors and potential hazards relating to fixed film aerobic bioreactor systems
- risk control requirements including safety equipment and material safety data sheets
- lockout procedures for mechanical and electrical installations and hydraulic isolation
- equipment operation, capacity and limitations
- relevant utilities and service bodies
- process calculation
- hazardous materials handling
- chemical and biological principles that form the basis of fixed film aerobic wastewater treatment
- types of fixed film processes
- recirculation principles
- operational problems

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

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

Links

Companion Volume implementation guides are found in VETNet -

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

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