



Australian Government

**Assessment Requirements for NWPTRT052
Operate and control hypochlorite
disinfection processes**

Release: 1

Assessment Requirements for NWPTRT052 Operate and control hypochlorite disinfection processes

Modification History

Release	Comments
1	<p>These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.</p> <ul style="list-style-type: none">• Assessment Requirements created drawing upon specified assessment information from superseded unit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 at least one type of process, in at least one type of technology and in at least one type of dosing procedure 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.

- applying policies, standard operating procedures and regulatory standards
- performing work-related calculations
- identifying and responding to process faults and control system faults
- identifying hazards
- performing hypochlorite tests and chlorine residual sampling and testing
- interpreting safety data sheets (SDS)
- monitoring, operating and reporting on hypochlorite disinfection systems
- selecting and using appropriate tools and equipment, including personal protective equipment
- collecting and reporting process data
- preparing and applying hypochlorite dosing safely
- performing process calculations, including at least one of:
 - feed rate
 - dosage
 - Ct

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.

- properties and chemistry of hypochlorite chemicals
- effects of pH, time, temperature, UV exposure and impurities on hypochlorite breakdown
- microbiological guidelines
- reactions with water to produce hypochlorous acid/hypochlorite ion
- impact of pH
- chlorine demands, including:
 - ammonia
 - natural organic matter (NOM)
 - turbidity
 - iron, manganese and nitrite
- disinfection by-products (DBP)
- breakpoint
- contact time
- hypochlorite dosing system layout for sodium hypochlorite and/or calcium hypochlorite dosing systems
- hazardous substances handling
- risk factors and potential hazards associated with hypo chlorination
- work-related hypochlorite calculations
- hypochlorite dosing processes
- automatic feed rate control systems
- SDS

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.

Some components of this unit require assessment in a workplace environment therefore the unit is not suitable for fully external or electronic based assessment.

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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