



Australian Government

**Assessment Requirements for NWPTRT022
Monitor and operate hypochlorite
disinfection processes**

Release: 1

Assessment Requirements for NWPTRT022 Monitor and operate hypochlorite disinfection processes

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:

- collecting and reporting process data
- identifying and responding to process faults
- identifying hazards
- interpreting and following safety data sheets
- monitoring, operating and reporting on hypochlorite disinfection systems
- performing at least one of the following concentration tests:
 - calcium hypochlorite
 - sodium hypochlorite solution
- performing chlorine residual sampling and testing
- performing process calculations including at least one of the following:
 - Ct calculation dosage
 - feed rate
- preparing and applying hypochlorite dosing safely
- selecting and using appropriate tools and equipment, including personal protective equipment

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 includes knowledge of:

- automatic feed rate control systems
- breakpoint
- chlorine demands including:
 - ammonia
 - iron, manganese and nitrite
 - natural organic matter (NOM)
 - turbidity
- contact time
- disinfection by-products (DBP)

- effects of pH, time, temperature, UV exposure and impurities on hypochlorite breakdown
- hypochlorite dosing system layout for sodium hypochlorite or calcium hypochlorite dosing systems
- impact of pH
- microbiological guidelines
- properties and chemistry of hypochlorite chemicals
- reactions with water to produce hypochlorous acid/hypochlorite ion
- relevant legislation, regulations and workplace procedures
- risk factors and potential hazards associated with hypo chlorination
- safety data sheets

Assessment Conditions

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>

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