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| Title | Demonstrate knowledge of, and monitor and maintain, reticulated water systems for a seafood live holding facility | | |
| Level | 3 | Credits | 20 |

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| Purpose | <p>This unit standard is for people working in a seafood operation.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of reticulated water systems for a seafood live holding facility; monitor the reticulated water system in a seafood live holding facility; and maintain the reticulated water system in a seafood live holding facility.</p> |
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| Classification | Seafood > Aquaculture |
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| Available grade | Achieved |
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Guidance Information

- 1 All evidence presented in this unit standard must be in accordance with:
 - Workplace procedures;
 - Animal Products Act 1999;
 - Food Act 2014;
 - Health and Safety at Work Act 2015; and any subsequent amendments.

- 2 Definitions

Seafood includes any species of – fish, echinoderm, crustacean, or shellfish.

Workplace procedures refer to the policies and procedures set out in a verbal or written form by the employer or organisation. Procedures must reflect current legislative requirements.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of reticulated water systems for a seafood live holding facility.

Performance criteria

- 1.1 Describe the sequence of events in the operation of the reticulated water system.

Range flow through, partially recirculated, fully recirculated.

- 1.2 Describe the function and operating principles of the equipment used in a reticulated water system.
- Range may include but is not limited to – pumps, filters, protein skimmers, ultraviolet units, ozone systems, heat exchangers, blowers, biofilters;
evidence of five is required.
- 1.3 Describe the ways that the reticulation water system is monitored to control water quality.
- Range dissolved oxygen, temperature, pH;
at least two of – carbon dioxide, ammonia, nitrate, nitrite, total dissolved gases, turbidity, salinity.
- 1.4 Describe the safety procedures to be used during monitoring and maintenance of a reticulated water system.
- Range may include but is not limited to – footwear, clothing, hair restraints and electrical isolation procedures;
evidence of three is required.

Outcome 2

Monitor the reticulated water system in a seafood live holding facility.

Range one of – flow through, partially recirculated, fully recirculated.

Performance criteria

- 2.1 Confirm the pumps are in a safe working order during operation.
- 2.2 Monitor the water flow and adjust as required to meet the needs of the stock being held.
- Range monitoring may include but is not limited to – flow meters, bucket test, dissolved oxygen test.
- 2.3 Monitor the aeration of the circulating water.
- 2.4 Monitor the filters and replace as necessary or arrange for replacement.
- 2.5 Monitor the water quality and report results.
- Range may include but is not limited to – oxygen, temperature, pH, carbon dioxide, ammonia, nitrate, nitrite, total dissolved gases, turbidity, salinity;
evidence of three is required.

Outcome 3

Maintain the reticulated water system in a seafood live holding facility.

Performance criteria

3.1 Maintain reticulated water system equipment.

Range may include but is not limited to – pumps, filters, protein skimmers, ultraviolet units, ozone systems, heat exchangers, blowers, biofilters; evidence of five is required.

3.2 Carry out minor repairs to the reticulated water system.

Range may include but is not limited to – replacing pump valves, cutting and replacing pipes, pigging lines, solvent jointing; evidence of three is required.

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| Planned review date | 31 December 2028 |
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Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|------------------|--------------------------|
| Registration | 1 | 28 January 2000 | 31 December 2019 |
| Review | 2 | 25 February 2008 | 31 December 2019 |
| Review | 3 | 12 December 2008 | 31 December 2019 |
| Review | 4 | 1 November 2018 | N/A |
| Rollover | 5 | 29 February 2024 | N/A |

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| Consent and Moderation Requirements (CMR) reference | 0123 |
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.