

**Qualification Title:** New Zealand Certificate in Marine Engineering Class 6 (Level 4) with an optional strand in Marine Engineering Class 5.

**Qualification number:** 2509

**Date of review:** 29 September 2020

This report refers to graduates awarded this qualification prior to: **31 December 2019**

**Final decision on consistency of the qualification: National consistency is confirmed**

### Threshold:

The threshold to determine sufficiency with the graduate profile of the core qualification was determined as evidence of graduates who, under broad guidance, will be able to:

- Follow safe working practices and contribute to effective communications and relationships on board.
- Operate and monitor vessel's propulsion engines and machinery.
- Maintain vessel's engine and machinery during in-service vessel operation.
- Prepare vessel's machinery and systems for survey and slipway maintenance.

Additionally, the threshold to determine sufficiency with the graduate profile of the Marine Engineering Class 5 optional strand was determined as evidence of graduates who, under broad guidance, will be able to:

- Apply an expanded knowledge of the structures and components of vessel machinery and systems, to operate and monitor the vessel's engines and machinery.
- Apply an expanded knowledge of vessel machinery and systems to the maintenance and repair of equipment on board a vessel.
- Apply safe and sustainable working practices and contribute to effective communication and emergency response on board a vessel.
- Apply procedures to protect the environment during vessel operations.

### Education Organisations with sufficient evidence

The following education organisations have been found to have sufficient evidence.

MOE Number	Education Organisation	Final rating
6010	Manukau Institute of Technology Ltd	Sufficient
6011	Nelson Marlborough Institute of Technology Ltd	Sufficient

### Introduction

The New Zealand Certificate in Marine Engineering Class 6 (Level 4) with an optional strand in Marine Engineering Class 5, is a 45-90 credit qualification intended for new entrants to the industry or engine room crew wishing to progress to roles as marine engineer. Graduates will generally operate under broad supervision from the chief engineer and the vessel master.

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The core qualification (45 credits) is designed to provide the maritime industry with personnel who have the skills and knowledge required to operate and maintain engine room and auxiliary equipment to entry-level Marine Engineer Class 6 (MEC 6) standards under the Maritime New Zealand Seafarer Certification and Operational Limits Framework. Students can attain the qualification after successful completion of the core components. Provided the students have at least 200 hours of sea-time, they are then eligible to apply to sit the MEC 6 examination administered by Maritime New Zealand (MNZ).

The optional Marine Engineer Class 5 strand, (which is a further 45 credits) recognises the expanded skills and knowledge required to attain Marine Engineer Class 5 (MEC 5) certification under the Maritime New Zealand Seafarer Certification and Operational Limits Framework. Graduates must have at least one year's sea-time to be eligible to sit the MEC 5 examination.

In light of the above, most students enrol in the core qualification of 45 credits and on graduation, or shortly thereafter, sit the MEC 6 examination. Some of these graduates, after having completed at least a year at sea, will then enrol in the optional strand leading to MEC 5. In other cases, applicants with industry experience (and possibly MEC 6) apply for recognition of prior learning for the core of the qualification and enrol directly into the optional strand.

Both providers participating in this review deliver the qualification to those already working in the maritime industry using a blended learning and block course format.

Graduates, who have also gained certification by MNZ, will be able to work as Marine Engineer Class 6 or Marine Engineer Class 5. After completion of pre-requisite sea-time they may also progress to the New Zealand Certificate in Marine Engineering (Level 6) [Ref: 2514].

There were 2 education organisations with a total of 46 graduates, who had representatives participating in a video conferenced consistency review meeting. The qualification was approved in 2015. Competenz is the qualification developer and two representatives took part the video conference review. The qualification was reviewed in 2020. Competenz indicated that the revised qualification has been approved, but not yet listed.

### Evidence

The education organisations provided a range of evidence to demonstrate that their graduates met the graduate profile outcomes.

The criteria used to judge the evaluation question were:

- The nature, quality and integrity of the evidence presented by the education organisation
- How well the organisation has analysed, interpreted and validated the evidence, and used the understanding gained to achieve actual or improved consistency
- The extent to which the education organisation can reasonably justify and validate claims and statements relating to the consistency of graduate outcomes, including in relation to other providers of programmes leading to the qualification.

Evidence provided included:

- Confirmation that each education organisation had a coherent programme of study which ensured that programme components led to the graduate profile.

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- Evidence of internal and external moderation that assured that the programmes were assessed at an appropriate level.
- Records of feedback from graduates, confirming that the programme had provided students with a range of skills aligned to the graduate profile and appropriate to an entry level role in the marine engineering industry.
- Examination completion data from Maritime NZ and feedback from MNZ examiners.
- Destination data and employer feedback.

### **How well does the self-assessment and supporting evidence provided by the education organisations demonstrate that their graduates match the graduate outcomes at the appropriate threshold?**

Education organisations submitted a range of evidence that could be triangulated to demonstrate that their graduates match the graduate outcomes at the appropriate threshold. This included assessment and moderation evidence; programme to GPO alignment; graduate and employer feedback; and destination data.

The education organisations provided good evidence related to the alignment of their approved programmes of study with the GPOs, and of the quality and suitability of the programmes and assessments in terms of supporting graduate consistency with the graduate outcome. The education organisations provided evidence that their programmes provided opportunities for assessment within realistic contexts aligned to the qualification.

Evidence relating to moderation was strong, demonstrating good internal moderation processes. Both education organisations provided evidence of external moderation.

Destination data supported that graduates were working in roles that required the application of skills and knowledge required by the graduate profile.

Graduate surveys confirmed that graduates had gained, and were using, the skills and knowledge outlined in the graduate profile.

Overall, the self-assessment and supporting evidence supplied, by those organisations found sufficient, demonstrates that their graduates meet the graduate outcomes at the determined threshold.

### **Special Focus** (includes special focus on a strand or outcome)

None

### **Examples of good practice**

Both education organisations presented well-organised, relevant, and clearly analysed evidence that was triangulated between programme information, graduate destination and feedback data, and data from end-users (Maritime NZ, and employers). Clear and focussed evidence presented in this way provides a concise and convincing case for consistency.

### **Issues and concerns**

One of the education organisations had delayed actively seeking feedback and engagement with graduates and graduate employers until the consistency review date approached, leading to difficulty contacting employers and limited value from the feedback they provided. Engagement with graduates, and graduate employers, should not be left until the next

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Consistency Review but rather be done as a part of normal business each year and then used to inform ongoing improvements to programme design and delivery.

### **Recommendations to Qualification Developer**

Both education organisation expressed frustration with the format (as described in the “introduction” section of this report) of this qualification. They would prefer that the core and optional components of this qualification be separated to make up two distinct 45 credit qualifications.