

**Qualification Title:** New Zealand Certificate in Refrigeration and Air Conditioning (Trade Assistant) (Level 3)

**Qualification number:** 2365

**Date of review:** 21 August 2017

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

**Threshold:**

The threshold to determine sufficiency with the graduate profile was determined as evidence of graduates who can perform limited assembly, installation, and maintenance functions of refrigeration and air conditioning systems under the supervision of a qualified tradesperson and can:

- Apply core engineering knowledge to the assembly, installation and maintenance of basic refrigeration and/or air conditioning plant and equipment
- Apply knowledge of refrigeration principles and their applications to the assembly, installation and maintenance of basic refrigeration and/or air conditioning systems to manufacturer's specifications
- Apply knowledge of relevant electrical theory and practice to safely test basic electrical circuitry
- Apply an understanding of refrigerants, their significance to the industry and their impact on the environment, to safely meet all relevant environmental and industrial legislation
- Recover refrigerant into a cylinder and charge refrigeration systems in accordance with current regulations
- Apply knowledge of welding to safely braze to an acceptable industry standard
- Work safely with a relevant understanding of Health and Safety requirements and workplace safety culture.

This threshold very is closely aligned to the strategic purpose statement and graduate profile outcomes of the qualification.

**Tertiary Education Organisations with sufficient evidence**

| Tertiary Education Organisation | Final rating |
|---------------------------------|--------------|
| Manukau Institute of Technology | Sufficient   |

## **Introduction**

This 120 credit qualification provides graduates with underpinning knowledge, understanding, and practical skill to work as a Trade Assistant in the Refrigeration and Air Conditioning industry.

During the period covered by this review, Manukau Institute of Technology was the only provider of the qualification, and there were eighteen graduates in 2016. The qualification developer is Competenz. Both organisations attended the review, and an observer from Competenz was also in attendance.

## **Evidence**

The Tertiary Education Organisation 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 Tertiary 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 Tertiary 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 by the Tertiary Education Organisation before and after the review includes graduate destinations (twelve of the eighteen graduates are employed in the trade), graduate and employer surveys, a log of industry engagement, internal moderation plan and two examples of external moderation and profiles of three graduates. The profiles included student, employer and provider perspectives.

### **How well does the evidence provided by the education organisation demonstrate that its graduates match the graduate outcomes at the appropriate threshold?**

The programme delivered by MIT has been approved by NZQA as an appropriate programme to enable learners to develop the skills knowledge and attributes required for the award of the qualification. External moderation by the Industry Training Organisation demonstrates that assessment is at the appropriate standard. An internal moderation plan was provided, but there was no evidence this had been completed or what the outcomes of internal moderation were. This was a weakness in the evidence.

The graduate destination report indicated that twelve of the graduates are employed in the industry relevant to the qualification. The remaining graduates are in unrelated employment.

Ten of the twelve graduates employed in the trade completed a graduate survey. Five companies that employ ten of these twelve graduates completed the employer survey. The surveys are representative and provide good evidence that the graduates match the graduate profile. For example, all employers agreed (20%) or strongly agreed (80%) that the programme meets industry expectations and that graduates operate at the level of a year 1 apprentice. Extensive consultation reported in the consultation log and to a lesser extent student profiles developed from the work experience component of the course also supports this.

There are however some weaknesses in the survey data.

The graduate survey is directly aligned with the learning outcomes, which are included in the threshold. However, two quite different outcomes (outcomes six and seven) are combined in one question reducing the usefulness of the response to this question.

The employer survey has simplified the outcome statements and in this process questions about outcomes one and five have been omitted. However, employer responses to an additional question asking them to benchmark graduate performance against year one apprentices provides good evidence that overall graduates are matching the outcomes at the appropriate threshold. Evidence about outcome five is further strengthened by graduates having achieved a related external industry certification during their study.

Over all the evidence makes a satisfactory case to demonstrate that the graduates match the graduate outcomes at the appropriate threshold.

### **Examples of good practice**

The graduate survey is closely aligned with the graduate outcomes.

Employers are asked to benchmark graduates against people undertaking similar training through the apprenticeship system

### **Issues and concerns**

More care is required in the development of surveys to ensure they demonstrate the learning outcomes are achieved and questions are clear and relevant.

More review and synthesis of information contained in the consultation log would be useful, especially since the links in it are not accessible to people external to MIT.

### **Recommendations to Qualification Developer**

There are no recommendations to the qualification developer.