

Qualification Title: New Zealand Certificate in Energy and Chemical Operations
(Plant and Machinery) (Level 3)

Qualification number: 2305

Date of review: 13 May 2019

This report refers to graduates awarded this qualification prior to: 31 December 2018

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 able to, under limited supervision, safely operate and monitor the performance of a basic range of plant and equipment in an energy and chemical plant, in accordance with standard operating procedures.

Education Organisations with sufficient evidence

Education Organisation	Final rating
Competenz	Sufficient
Connexis Infrastructure ITO	Sufficient
Primary Industry Training Organisation	Sufficient
Western Institute of Technology (WITT)	Sufficient

Introduction

The purpose of this 60 credit, Level 3, qualification is to provide the energy and chemical plant industry with competent employees who have attained the operational skills and knowledge required to work as entry-level plant and machinery operators. An energy or chemical plant context may occur in petrochemicals, agri-nutrients, power generation, dairy processing, meat processing and wood fibre manufacturing or other plants that operate with a combination of high temperature, pressures, steam and/or chemicals in gas, liquid or solid form.

The qualification is intended for individuals who wish to enter the energy and chemical plant industry or those already working as entry-level operators. With further work experience and study, graduates may gain employment as boiler operators or control room operators.

The Primary ITO is the qualification developer for this qualification. The review of this qualification had commenced at the time of this consistency review. A representative from the ITO participated in the consistency review meeting, along with representatives of the four education organisations who have had graduates from their programmes. A member of

Final Consistency review report

NZQA's Approvals and Accreditation team also attended the meeting as an observer. The Consistency Review for the Level 4 New Zealand Certificate in Energy and Chemical Field Operations [Ref: 2307] was conducted at the same meeting, as three of the four education organisations presenting, also had graduates from the Level 4 qualification.

During the graduate reporting period (1 January 2014 to 31 December 2018) the four organisations had a total of 69 graduates of the NZ Certificate in Energy and Chemical Operations (Plant and Machinery) (Level 3). This included 10 graduates who had been awarded the qualification through a recognition of prior learning (RPL) process.

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.

Two of the ITOs managed workplace training programmes, with trainees learning and applying skills on the job and being assessed by the ITO's trained workplace assessors. The other ITO contracted the provision to registered providers who offered block courses, marking of assessments completed in the workplace, and site visits with a plant walk as a capstone assessment. The ITO monitors its trainees' progress.

The ITP's programme had a Workplace Health and Safety Practice qualification embedded along with this qualification. It had engaged an industry based tutor and arranged work placements to ensure the learning was current and occurring in a 'real' environment.

Programme evidence

The four education organisations provided details of their approved programmes, including Programmes of Industry Training and the Programme of Study. The documentation demonstrated how their programmes, courses and/or unit standards mapped to the graduate profile outcomes.

All education organisations confirmed they had met the conditions for the programme context, as specified in the qualification document, by ensuring their training and resources were kept-up-to-date with regard to, and replacements of, legislation and industry standards applicable to the energy and chemical plant sector.

Reporting on moderation processes and outcomes showed that all educational organisations had robust moderation policies, internal and external moderation activities had been undertaken in accordance with schedules. All education organisations had pre-moderated their assessment tools, or those developed by the company they worked with. The ITOs had

Final Consistency review report

provided training through workshops and on-line resources for their workplace assessors and providers, and supported assessors in the workplaces. Moderation results showed that assessor decisions were generally consistent and at the national standard.

Internal quality assurance processes, including annual programme self-assessment activities and improvement plans demonstrated that the organisations were reflecting on their outcomes, planning and implementing improvements. One organisation presented their recent EER report as evidence of the programme achieving high value outcomes and strong industry connectiveness. Changes to learning resources and assessments were being made based on feedback from support teams, learners and stakeholders.

One education organisation has developed a 'Delivery Management Framework' as a mechanism for selecting, monitoring and evaluating the providers they contract to deliver training, and are expecting this to better support learner progressions and enable employers to get the skills they need.

Graduate feedback

All four education organisations had collected feedback from their graduates using surveys. Whilst some response rates were not high (between 20-40%), results showed that graduates were confident that they had met the graduate profile outcomes and were applying these skills and associated knowledge in their workplaces. Graduates' comments were positive, showed they valued the learning and had increased confidence in their roles. One education organisation had included questions about how the learnings from the qualification had enabled them to contribute to their community and whanau.

Several of the education organisations acknowledged the need to improve their survey response rates and were investigating alternative methodologies for gaining feedback from their graduates.

Destinations and Employer feedback

Graduate employment rates were very high (close to 100%), with the majority of those in industry training continuing with the employer they trained with, and many gaining career progressions as a result of completing the qualification. The ITP had all of their graduates pathway to employment.

Some graduates had progressed to study in the higher level qualification, the New Zealand Certificate in Energy and Chemical Field Operations (Level 4) with strands [Ref: 2307].

Employer feedback was collected by all organisations and was very positive, demonstrating employers valued the qualification and the skills and knowledge their employees gained from the training.

All four education organisations had strong energy or chemical industry connections, for the ITOs within their gazetted scope and for the ITP in the region of their provision.

Final Consistency review report

How well does the self-assessment and supporting evidence provided by the education organisation demonstrate that its graduates match the graduate outcomes at the appropriate threshold?

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

Programmes were well designed and provided coverage of the graduate profile outcomes. Moderation processes and results indicated there was quality assessment undertaken by all organisations. Internal self-assessment and continuous improvement processes were evidenced.

Feedback from graduates, employers and industry stakeholders provides verification that graduates are demonstrating evidence of meeting the qualification graduate profile outcomes.

The high rates of employment shows industry values the skills and knowledge graduates have gained from the qualification, and they are supporting career progressions and further study for the graduates

Industry engagement with the education organisations was strong and endorsed their claims that they were meeting the needs of industry through producing graduates who met the qualification's outcomes.

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

None.

Recommendations to Qualification Developer

None.