

**FIELD      ENGINEERING AND TECHNOLOGY****Review of *Engineering* qualification****National Diploma in Engineering (Mechanical Engineering) (Level 6) [Ref: 0534]**

Competenz (trading name for the NZ Engineering, Food and Manufacturing Industry Training Organisation) has completed the review of version 1 of the above qualification, which was registered in October 1998.

**Date new version published****February 2006****Outline of review process**

The review was undertaken by Competenz, with representatives from industry, training providers, and the Institution of Professional Engineers of New Zealand (IPENZ).

The qualification review was part of a scheduled review of the diploma and in response to stakeholders' comments on version 1. The qualification review was timed to co-inside with a review of the unit standards in the *Applied Principles of Mechanical Engineering* domain, from which the bulk of the qualification is drawn.

The relationship between the diploma and its supporting qualifications was also examined, particularly the progression from the following

- National Certificate Mechanical Engineering (level 5) [Ref: 0718]
- National Certificate Heating, Ventilating, and Air conditioning (Mechanical Services) (Level 5) [Ref: 0897]
- National Certificate in Engineering and Toolmaking (Level 5) [Ref: 0719].

In addition to consultation with the Competenz advisory group network the following Industry Training Organisations were consulted during the review of the diploma and its associated unit standards

- Electrotechnology Industry Training Organisation (ETITO)
- Electricity Supply Industry Training Organisation (ESITO)
- InfraTrain New Zealand
- Plastics and Materials Processing Industry Training Organisation.

The reviewed diploma was endorsed at the advisory group meeting on the 21 July 2005; and following updating to take into account changes in unit standards during the registration process, was confirmed at the advisory group meeting on the 14 September 2005.

**Main changes resulting from the review**

The review process has resulted in the following change to the qualification.

National Diploma in Engineering (Mechanical Engineering) (Level 6) [Ref: 0534]  
**National Diploma in Engineering (Level 6) with strands in Mechanical Engineering, Production Engineering, and an optional Practical Endorsement strand**

### Changes to structure and content

- Increased qualification size (from 240 credits to 244 credits)
- The requirement to complete one of the available strands in the core diploma: Mechanical Engineering or Production Engineering
- Name changed to accommodate the stranding of the qualification to recognise production engineering as well as mechanical engineering
- Greater emphasis on practical experience, with the ability to achieve an optional Practical Endorsement strand on top of the core diploma
- A more relevant compulsory section incorporating the following changes
  - Replacement of the requirement to achieve 15 credits at level 3 from specified subfields with requirement to achieve unit standard 21775
  - Removal of standard 11414 and inclusion of standards 2430 and 21772
  - Inclusion of thermodynamics standard 21781
  - Transferral of vibration and acoustics from the compulsory to the core elective section
  - Transferral of compulsory standards 21783, 21784, and 21277 to the Mechanical Engineering strand
  - Replacement of reviewed unit standards designated expiring as a result of the review (see table below).
- Replacement of set technical elective lists with core electives drawn from the *Applied Principles of Mechanical Engineering* domain
- A clearer career pathway for tradespeople entering the qualification
- Inclusion of credit transfer arrangements for people with passes in specified University or Polytechnic Papers and holders of specified Trade or Advanced Trade Certificates.

### Transition

People currently working towards version 1 of the National Diploma in Engineering (Mechanical Engineering) (Level 6) [Ref: 0534] may choose to complete that qualification or transfer to version 2.

**The last date for award of version 1 will be 31 December 2010.**

The following transition provisions are available for people who wish to transfer to this qualification:

Credit for	Exempt from
11414	2430 and 21772
15 credits at level 3 or above from the <i>Mathematics and/or Statistics and Probability</i> subfields	21775

This qualification contains standards that replace earlier standards. For the purposes of this qualification people who have gained credit for expiring standards are exempt from the requirement to gain credit for the replacement standards.

<b>Expiring Standards</b>	<b>Replacement Standards</b>
2824	21911 and 21912
11387	21781 and 21782
11388 and 11389	21773 and 21774
11390	21783 and 21784
11391	21277
11394	21785
11395 and 11396	21787
11397	21788

### **Transition to the optional Practical Endorsement strand**

For the purposes of this qualification, people who have been awarded the National Diploma in Engineering (Mechanical Engineering) (Version 1) [Ref: 0524] and who have met the Practical Endorsement strand requirements, are exempt from the requirement to gain credit for the following components.

<b>Achieved</b>	<b>Exempt from</b>
National Diploma in Engineering (Mechanical Engineering) (Version 1) [Ref: 0524]	Core Compulsory
	Core Elective
	Mechanical Engineering Strand

### **Credit Transfer Arrangements**

The reviewed diploma includes exemptions for:

- People with passes in specified University or Polytechnic Papers
- Holders of specified Trade or Advanced Trade Certificates

An application form for credit transfer is attached to the registered qualification document.

### **Exemptions for engineering papers**

Candidates with passes in relevant engineering papers from a New Zealand University or Polytechnic Degree may claim exemptions from the following standards.

<b>Exempting Paper</b>	<b>Exempt from</b>
A pass in Engineering Intermediate Mathematics	21775 and 21776
A pass in Engineering Mechanics Stage 1	21773

Competenz will consider and approve relevant engineering papers and verify results before applications are sent to NZQA for processing.

### **Exemptions for Trade or Advanced Trade Certificates**

Holders of Trade or Advanced Trade Certificates may claim exemptions from the following standards.

<b>Exempting Qualification</b>	<b>Exempt from</b>
Trade Certificate/Advanced Trade Certificate in any one of the following: <ul style="list-style-type: none"> <li>• Boilermaking</li> <li>• Fitting &amp; Welding A</li> <li>• Fitting &amp; Welding B</li> <li>• Heating, Ventilating &amp; Air Conditioning</li> <li>• Refrigeration</li> <li>• Sheetmetal Engineering</li> <li>• Toolmaking</li> <li>• Patternmaking</li> </ul>	2430, 21911, 21912, and 14866

## Appeals

It is the intention of Competenz that no existing candidate is disadvantaged by these transition arrangements. Any person who considers they have been disadvantaged should contact the ITO:

Competenz  
 PO Box 62 561  
 CENTRAL PARK  
 Auckland

Telephone            0800 2 SKILL (0800 275 455)  
 Facsimile            (09) 525 7737  
 Email                 qualifications@competenz.org.nz