



# Safety Lines

**OSH**  
occupational safety  
& health service  
te ratonga oranga

  
DEPARTMENT OF  
**LABOUR**  
TE TARI MAHI

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## Recognised Qualifications

The purpose of this article is to summarize and clarify the qualifications currently required to satisfy the PECPR Regulations 1999, with regard to New Zealand operations. It does not cover overseas qualifications, whether held by persons in New Zealand or overseas. The article represents a snapshot of the qualification scene today, and this may change over time as qualifications and qualification issuing agencies change. It is also confined to qualifications in relation to specified activities (defined below).

The PECPR Regulations define a **specified activity** and **certificate of competence**.

- A **specified activity** includes design verification, equipment inspection, and operation of an attended or limited attendance boiler.
- A **certificate of competence** states that the holder is suitably qualified to carry out a specified activity. This is issued by a qualification issuing agency or may (in special circumstances) be issued by the Secretary of Labour.

### Design Verifiers

Design verifiers are assessed by the Institution of Professional Engineers New Zealand (IPENZ), and are issued with a certificate acknowledging that they

are qualified to perform design verification in accordance with the PECPR Regulations, and stating the equipment covered. The certificate is renewed every three years. This is what is meant by a relevant IPENZ certificate of competence in codes of practice.

### Equipment Inspectors

There is only one qualification issuing agency offering inspection qualifications, the Certification Board for Inspection Personnel (CBIP). Therefore for equipment inspectors the certificate of competence is the appropriate CBIP qualification, which is renewable every five years subject to the inspector meeting CBIP requirements.

### Pressure equipment

The CBIP qualification for pressure equipment is available at two levels, Pressure Equipment Inspector (PEI) and Pressure Equipment Inspector with Endorsements (PEI with Endorsements). The scope of equipment covered is related to these levels in the CBIP Standard of Proficiency, which can be downloaded by visiting the internet at:

[www.hera.org.nz](http://www.hera.org.nz)

and selecting CBIP.

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From a PECPR Regulations perspective, the relevant level of qualification is needed for inspection of pressure equipment leading to the recommendation to a recognised inspection body of the issue of a certificate of inspection for that equipment. It is also required for the inspection of equipment of hazard levels B and below when inspection is performed in-house by an organisation having an ISO 9001 quality management system\*.

CBIP Welding Inspector (“WI”) and Senior Welding Inspector (“SWI”) certification covers fabrication inspection. In terms of Engineering Safety policy for the PECPR Regulations, it enables a trainee inspector to carry out some inspection functions under supervision (but not recommend the issue of, or sign, a certificate of inspection). It is also acceptable for the inspection of equipment of hazard levels D and E (or B and below for pressure piping) when inspection is performed in-house by an organisation having an ISO 9001 quality management system\*. In such a case of in-house inspection of pressure piping, if the hazard level is B, any pressure testing must be witnessed by an inspection body.

\*Such an organisation must have an appropriately scoped ISO 9001: 2000 quality management system, and the necessary PECPR Regulations exemption.

**Note:** Hazard levels are in accordance with AS 4343-1999 *Pressure equipment - Hazard levels*.

## Cranes

The normal CBIP qualification for cranes is Crane Inspection (“CRANE”) certification, which is related to the category of crane covered, as seen in the following table:

Category A	Overhead and underhung travelling Goliath and Semi Goliath Wall Pillar Monorail
Category B	Tower
Category C	Power driven mobile Pile driving Straddle carrier
Specific Category	Cranes not stated in categories A, B or C The crane type is stated on the certificate e.g. Con = Container

**Note:** For cranes, there are some instances defined in the *Approved Code of Practice for Cranes*, such as where an inspection protocol exists, where some inspection of certain equipment does not need to be carried out by an equipment inspector.

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## Passenger ropeways

The normal CBIP qualification for passenger ropeways is Passenger Ropeways (“PASS-ROPE”) certification.

## Boiler Operators

### Current qualifications

The qualification issuing agencies for boiler operator qualifications are the recognised industry training organisations. The current qualifications representing the certificate of competence for this activity are the *National Certificate in Energy and Chemical Plant (Process Operation)* (EnChem), and the *National Certificate in Electricity Supply (Thermal Plant Operator) (Level 4) with strands in Thermal Operations, Combined Cycle Operations, and Co-generation Operations*. Levels of qualification appropriate to various boiler capacities, for attended and limited attendance boilers, are given in the following table.

Boiler Capacity	Minimum Qualification
Up to and including 1.2 MW	Responsible person as defined in the <i>Approved Code of Practice for the Design, Safe Operation, Maintenance and Servicing of Boilers</i> .
Up to and including 6 MW	EnChem - Boiler Attendant's Certificate
Up to and including 20 MW	EnChem - Level 2
Any boiler	EnChem - Level 4, or National Certificate in Electricity Supply (Thermal Plant Operator) (Level 4) with strands in Thermal Operations, Combined Cycle Operations, and Co-generation Operations.

**Note:** A responsible person is defined as a person who is appointed by the controller and who is trained to the level specified by the manufacturer of the boiler, or to a level acceptable to an inspection body, to exercise general supervision of the safe operation of the boiler.

### Pre-regulation Qualifications

Previous qualifications issued under the Boiler, Lifts and Cranes Act 1950 are still recognised and in use. For information on these refer to the article entitled ‘Boiler Operator Qualifications’ in *Safety Lines* No. 43.

## Boilers Not Exceeding 6MW - Documented System

It has become apparent that there is some misunderstanding about the requirement for a documented boiler operation and maintenance quality system, and its auditing, for unattended and limited-attendance boilers, where operations are not carried out under an ISO 9001 quality management system.

Regulation 10(4) of the PECPR Regulations states:

“Every controller of a limited attendance boiler or an unattended boiler must notify the Secretary before operating the boiler for the first time.”

Regulation 10(5) states that:

“Every controller of a limited attendance boiler or an unattended boiler must take all practicable steps to ensure that no such boiler is operated unless a quality management system relating to it is in place.”

The above regulations are supported and amplified in the *Approved Code of Practice for the Design, Safe Operation, Maintenance and Servicing of Boilers*.

Firstly in the case under consideration, a non-ISO system not exceeding 6MW, notification of the

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Secretary is by means of complying with the requirements of appendix C of the code of practice. This includes the requirement for the controller to supply “A copy of an interim document issued by the Inspection Body stating that the Quality Management System is established to their complete satisfaction, has been examined and that it is considered to make adequate provision for all essential safety purposes as a short-term measure”.

Secondly, a full quality management system must be established (within an agreed time), and there is a need for ongoing auditing of this system. This is met in the case under consideration by satisfying the requirement of 1.30.4(a) of the code of practice

(1.31.4(a) in the current draft). The requirement is for “A documented boiler operation and maintenance quality system approved and audited annually by an inspection body”. The general composition of the documented boiler operation and maintenance quality system is also given in appendix C.

In summary, if a boiler not exceeding 6MW is operated in limited-attendance or unattended mode, and not under an ISO 9001 quality management system, then it must have a documented boiler operation and maintenance quality system. This system must be audited by an inspection body annually.

## **Elevating Work Platforms - Ten-Yearly Check-Up**

The *Approved Code of Practice for Power-Operated Elevating Work Platforms* states that after a period not exceeding ten years from new and every five years after that, elevating work platforms are to be subjected to a major examination. This is in accordance with clause 10.4 of AS 2550.10-1994 *Cranes - Safe use - Elevating work platforms*.

AS 2550.10 refers to the time period as “a maximum of 10 years of service and every five years thereafter”. For practical reasons the code of practice differs from this by stating “ten years from new and thereafter every five years”. It is obviously more practical to establish when the equipment was new than meaningfully log the cumulative usage. The assumption is made in the code that equipment such as this is not left unused for very long, and hence the period of ownership of the machine, provided it was bought new, approximates the time in service.

Compliance with the code is not mandatory. If it can be clearly shown that there was a significant period of non-use, and satisfactory storage over that period can be demonstrated, the controller may feel justified in departing from the guidance of the code on that point. It should be borne in mind that, in taking this position, it might subsequently be necessary to defend it in the event of an incident occurring.

Where the history of a machine is less clear, the ten-year period should be taken from the date of manufacture.

See also the article *Elevating Work Platforms - Major Inspection* in *Safety Lines* issue 58.

## Announcements

The following organisation has been recognised under the PECPR Regulations as an Inspection Body for fabrication inspection of pressure equipment:

**Arise Incorporated**  
**Grand Bay II**  
**6940 South Edgerton**  
**Brecksville, OH 44141**  
**United States of America**

The following organisation has been granted exemption under regulation 5 from the requirements of the PECPR Regulations for design verification to be carried out by a design verifier employed or engaged by an inspection body, in relation to pressure piping of its own design (hazard levels C and D - as per AS 4343-1999):

**Foster Wheeler International Corporation**  
**(Thailand Branch)**  
**217 Moo 12**  
**Sukhapiban 8 Road**  
**Tungsookhla**  
**Sriracha**  
**Cholburi 20230**  
**Thailand**

The above exemption is limited to pressure piping intended for installation at The New Zealand Refining Company Ltd as part of the current Future Fuels Project.

A full list of recognised inspection bodies and known contact details can be viewed at the Engineering Safety website, which can be accessed via the OSH website at:

[www.osh.dol.govt.nz](http://www.osh.dol.govt.nz)

using the services button, or by going directly to:

[www.osh.dol.govt.nz/services/eng-safety/index.shtml](http://www.osh.dol.govt.nz/services/eng-safety/index.shtml)

## HERA Courses and Seminars

HERA Training Centre is offering the following courses and seminars during 2004:

Activity	Dates
Coatings inspection home study	All year
Introduction block courses	9 - 10 September
Welding inspection	30 Aug - 3 Sept 8 - 12 November
Surface methods	2 - 5 August
Radiographic theory and interpretation of weld radiographs	6 - 10 September
Ultrasonic testing theory and ultrasonic weld testing	20 - 24 September
Management appreciation in non-destructive testing	13 October

The venue for the above courses is:

**HERA House**  
**17 - 19 Gladding Place**  
**MANUKAU CITY (South Auckland)**

**Note:** Enrolment closes 7 days before start of course.

For further details contact:

**HERA Training Centre**  
**PO Box 76134**  
**Manukau City**  
**Phone: 09 262 2885**  
**Fax: 09 262 2856**  
**Email: [admin@hera.org.nz](mailto:admin@hera.org.nz)**

## Web Address Change

The Engineering Safety website received a minor facelift to correspond more closely to other parts of the overall OSH website, and now has a new address:

[www.osh.dol.govt.nz/services/eng-safety](http://www.osh.dol.govt.nz/services/eng-safety)

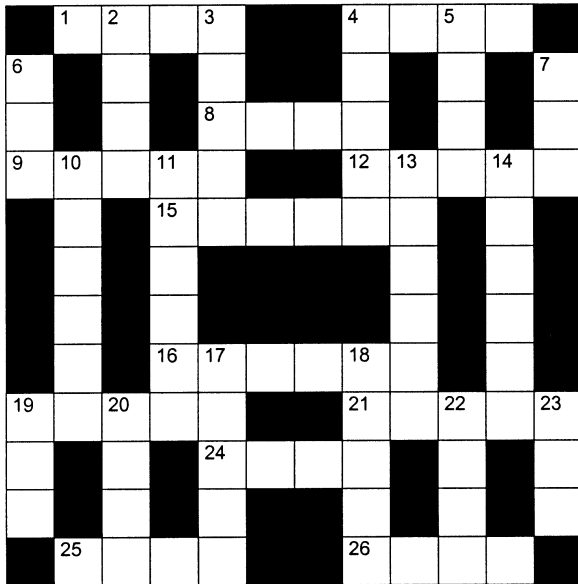
If you prefer to visit via the main OSH site at:

[www.osh.dol.govt.nz](http://www.osh.dol.govt.nz)

it is now easier to reach Engineering Safety from there as you can just select "Services" near the top of the page, then "Engineering Safety".

Also, Engineering Safety team members (as all OSH staff) now have email addresses in the form `firstname.lastname@dol.govt.nz`.

# Puzzle Place



Answers include abbreviations and acronyms.

## ACROSS

- 1 Counterfeit articles
- 4 Electrical unit
- 8 Expectantly
- 9 Boiler output
- 12 Customary practice
- 15 Very small
- 16 Standing
- 19 Performed
- 21 Composition
- 24 Fit
- 25 Woody plant
- 26 Measure taken

## DOWN

- 2 Impel
- 3 Religious teacher
- 4 Imprecise
- 5 Volcanic output
- 6 Idle talk
- 7 American engineering society
- 10 Testing Laboratory Registration Council
- 11 Electrical unit
- 13 Inflicts sharp wound
- 14 Old British coin
- 17 Saying
- 18 Requires
- 19 Wonder
- 20 Unit of pressure
- 22 Foot covering
- 23 Ox

Answers can be obtained by email from:

[robin.bain@dol.govt.nz](mailto:robin.bain@dol.govt.nz)

# Answers to *Safety Lines* Issue 61 Crossword

## Across

- 1 Pizza
- 3 Weber
- 6 Save
- 7 OSH
- 8 Tones
- 9 Eon
- 11 Damns
- 14 Erie
- 15 Eased
- 17 Sum
- 19 Bel
- 22 Audit
- 23 Enforce
- 25 East
- 26 Grease

## Down

- 1 Pound
- 2 Ashes
- 3 Wet
- 4 Bandits
- 5 Ruse
- 7 Ohm
- 10 Newer
- 12 ASME
- 13 NDE
- 16 Apart
- 18 Motile
- 19 BLEVE
- 20 Lofts
- 21 Curie
- 24 Erg

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