

Safety Lines

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ENGINEERING SAFETY NEWSLETTER, OCCUPATIONAL SAFETY AND HEALTH SERVICE

No. 32,
30 June 1997

Qualifications for the New Zealand Crane Industry

Qualifications for the New Zealand crane industry have been developed by the Power Crane Industry Training Organisation to increase the skill levels of all persons involved in the crane industry.

They are qualifications worked towards by trainees and other persons wishing to improve their knowledge of the crane industry. The training is predominantly on-job.

These qualifications will be registered on the National Qualifications Framework and the National Certificates which will be available are:

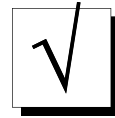
- National Certificate in Crane Operation (Mobile)
- National Certificate in Crane Operation (Tower)
- National Certificate in Crane Operation (Overhead)
- National Certificate in Cranes (Advanced Mobile Crane Operation)
- National Certificate in Cranes (Mobile Crane Supervision)
- National Certificate in Cranes (Tower Crane Supervision)
- National Certificate in Cranes (Mobile Crane Dispatch Supervision)
- National Certificate in Cranes (Servicing Mobile Cranes) (Mechanical)
- National Certificate in Cranes (Servicing Mobile Cranes) (Electrical/Electronic)
- National Certificate in Cranes (Servicing Tower Cranes) (Mechanical)
- National Certificate in Cranes (Servicing Tower Cranes) (Electrical/Electronic)
- National Certificate in Cranes (Servicing Overhead Cranes) (Mechanical)
- National Certificate in Cranes (Servicing Overhead Cranes) (Electrical/Electronic)



If you want to find out more about these qualifications or obtain a copy of the handbook *New Zealand Crane Industry Qualifications*, please contact:

The Executive Officer
Power Crane Association of New Zealand (Inc.)
PO Box 30074
Lower Hutt
Tel: (04) 569 9799 Fax: (04) 569 6969

Swift Survey Results



We remind readers, that the client response graphed over the page, relates to the following questions ranked on a scale of 0-4. 0 indicates client disapproval/disagreement and 4 indicates client approval/agreement.

1. If you have used Engineering Safety services during the last twelve months, were your needs generally met?
2. How would you describe the quality of the service you have received from the points of view of:
 - reliability?
3. - responsiveness?
4. - assurance?
5. - empathy?
6. Do you feel that Engineering Safety staff understand your point of view?
7. Do Engineering Safety staff assist in finding solutions to your problems?
8. Do Engineering Safety staff keep you informed of all developments that directly affect you and your business?
9. Can Engineering Safety staff be contacted when needed?
10. Do Engineering Safety staff keep you informed of progress toward resolution of your enquiries?
11. Have Engineering Safety staff assisted you in improving safety within your organisation?
12. Do Engineering Safety staff make your concerns their priority?
13. Do Engineering Safety staff respond to your enquiries within your deadlines?
14. Does Engineering Safety display flexibility in meeting your needs?

(Continued on Page 3 ...)

New Design Verifying Service

Engineering Safety has recognised Independent Design Verification Services Limited as an inspection body pursuant to the draft Pressure Equipment, Cranes and Passenger Ropeways Regulations. Enquiries should be made in the first instance to:

Ling Ling Wong
77 A Cortina Avenue
PO Box 13-373
Johnsonville
Wellington 6004
Tel: (04) 477 3401 Fax: (04) 477 3689
Email: pwong@XTRA.co.nz

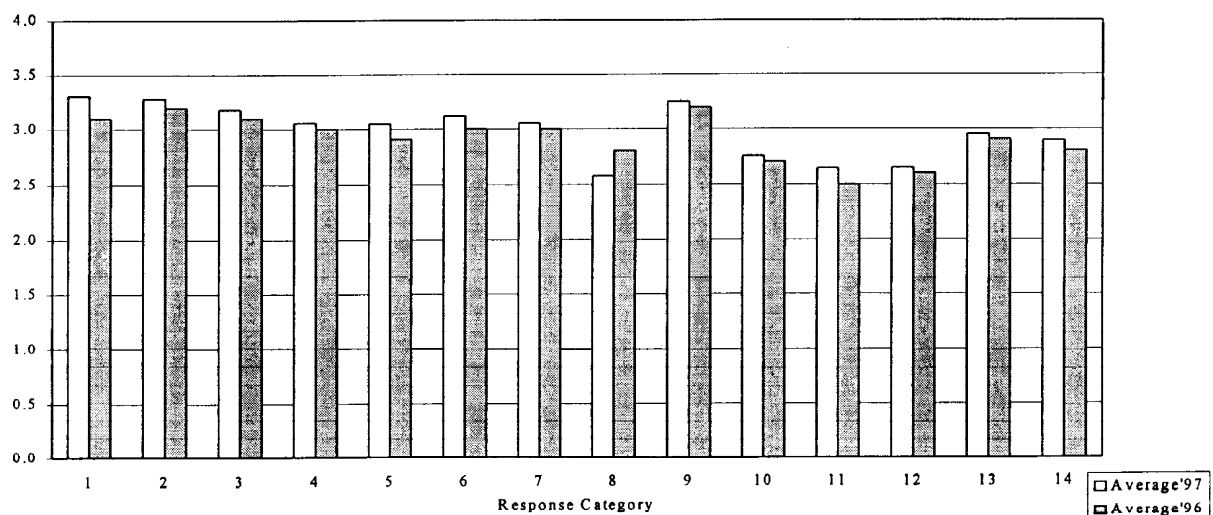
As with earlier approvals, we are publishing the stamp used by the company to indicate that documents have been inspected and approved by their registered design verifiers.

Independent Design Verification Services Limited

This drawing shall be read in conjunction
with certificate no. _____
verified by _____

(Continued from Page 2 ...)

SWIFT SURVEY RESULTS (as measured in May '97)



The client survey was conducted in a similar way to three previous annual surveys, to enable direct comparison with our previous performance. There were 641 survey forms sent out this year, of which 194 were returned to our office, to give a 30% return. The results show that Engineering Safety staff's performance, as perceived by our clients, has improved in most categories since our last annual survey. Out of 14 categories, 13 have improved, and one has dropped. These results are pleasing and have created enthusiasm for further improvement.

As measured, the biggest improvements appear in categories 1, 5, 6 and 11, i.e. Engineering Safety staff is perceived to have made improvements in satisfying your needs generally, have improved quality of the service (empathy in particular), have improved understanding of our client's viewpoint and have assisted towards improvement of safety within your working environments. On the other hand, there is room for further improvement in category 8; that is, "keep you informed of developments that directly affect you and your business".

We will endeavour to improve our performance in this area through publications such as *Safety Lines*, *ES Docs*. and by responding effectively to your enquiries. On the following pages you can find your comments, coupled with our response. Client names and some other information mentioned in the replies have been removed to avoid any suggestion of bias and to reassure you that your comments remain anonymous. We have taken this approach as publication in *Safety Lines* is the most practicable way to reply to your comments.

Once again, we would like to thank all of you who took the time to complete and return our survey forms, to give us valuable feedback on our performance.

(Continued on Page 4 ...)




Engineering Safety Staff Contact Details





Engineering Safety wish to advise readers that our telephone and fax numbers have recently been changed.



The new contact details, with our e-mail addresses are as follows:


	Phone:	Fax:	Email:
Bryn George	(04) 915-4433	(04) 915-4370	Bryn.George@osh.dol.govt.nz
Peter Williamson	(04) 915-4461	(04) 915-4370	Peter.Williamson@osh.dol.govt.nz
Geoff Edwards	(04) 915-4435	(04) 915-4370	Geoff.Edwards@osh.dol.govt.nz
Mato Dugalic	(04) 915-4460	(04) 915-4370	Mato.Dugalic@osh.dol.govt.nz
John Buxton	(04) 915-4449	(04) 915-4370	John.Buxton@osh.dol.govt.nz

You will be able to use our old telephone and fax numbers until the end of this year, which should give you plenty of time to mark the changes in your address books. Since we have not changed location, our postal and delivery details remain the same; i.e. Aurora House, 62 The Terrace, PO Box 3705, Wellington.

Survey Number	Client comment!	Our little clarification!
3	We have been more than delighted with the service Bryn George has provided us.	
7	I found the limited hours of the office staff a bit of a nuisance at times.	Engineering Safety staff are available during normal office working hours, i.e. between 8 am and 5 pm, every working day.
8	My contact is to keep up to date with safety issues. The newsletter is well laid out and current.	
14	Our representative has been very helpful and the resource kit is excellent.	
30	Many of the answers given to us are verbal. Answers in writing are preferred.	Current office policy is that each of the written incoming inquiries are replied to in writing.
32	Generally good performance in my experience.	
33	The local OSH offices are not as knowledgeable about PECPR Regulations as Engineering Safety and this can compromise a local enquiry.	Engineering Safety provides support to the OSH branch offices as and when required. However, as we expect PECPR regulations to come into force in due course, we will pursue informative briefings with OSH branch offices.
40	We have found the North Harbour office particularly helpful and understanding.	Thank you, we have passed on the message.
42	I do not believe we have used your services. We are generally helped by the Mines Inspectorate Group of Ministry of Commerce. If this is not correct please send out another survey. Thanks for the opportunity to comment.	
44	I have not had contact with you but find your <i>Safety Lines</i> publication very good and have issued assessment on the top few topics on that basis.	See comment at 157!
46	Please update your records re our address.	Done!
47	<ol style="list-style-type: none"> 1. From the transport perspective (i.e.: cranes etc.) the information received has been invaluable. 2. It also keeps us aware of civilian regulations/modifications. 	
48	The reason we are on the mailing list is to keep us informed of new matters, or matters arising from problems.	
55	We have not had contact with this group. We are an office environment and have no need for cranes and pressure equipment.	

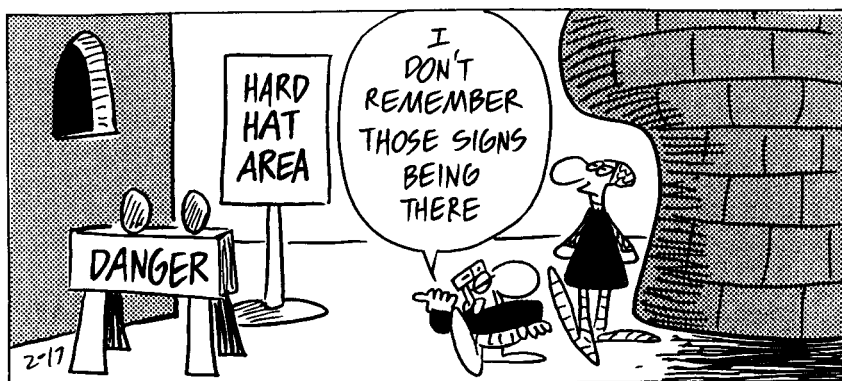
Survey Number	Client comment!	Our little clarification!
57	I have not used services much and I am still waiting for the code of practice for passenger ropeways - it's taking an extremely long time.	We hope that the meeting on 26 May 1997 addressed this for you.
58	We have not used your services, <i>Safety Lines</i> is helpful.	
66	I have no direct involvement with your staff in my present role. Nevertheless I find the <i>Safety Lines</i> mailout extremely valuable to maintain a "watching brief" in an area which I have been heavily involved in in the past and may be in the future. With regards to this publication - well done and long may it continue. P.S. case studies are particularly good.	
67	We have not used the services of Engineering Safety during the last 12 months.	
69	<i>Safety Lines</i> - valuable. Keep it coming!	
71	We have a high regard for our local OSH people and regularly call on their assistance and guidance.	Same comment as 40. Thank you.
74	We get <i>Safety Lines</i> which I find very useful, however we haven't yet had reason to deal with any of your staff.	
75	I have found Engineering Safety staff very helpful and knowledgeable on my points of concern. The information supplied has been of very good quality, especially the newsletter.	
77	We have not had any direct contact with Engineering Safety in the last 12 months, so are unable to comment.	
78	It is assuring to have people of the calibre of those employed by OSH and their individualistic approach to our industrial problems is very much appreciated.	
82	Information contained in <i>Safety Lines</i> is appreciated and distributed around my clients as appropriate - often a good stimulus to discussion on safety issues.	
83	All enquiries should be systematically acknowledged in receipt. If practical, advise of likely timetable or delays.	Engineering Safety operates an inwards mail identification system. The average response time for the last business year, until 30 April 1997 was 2.94 working days. However we apologise if there has been any particular problem or delay.

Survey Number	Client comment!	Our little clarification!
87	Please add me to your publications mailing list. I have to date had no contact with your department.	Done! See comment on 121!
88	I am unable to track down the recipient of <i>Safety Lines</i> or <i>E.S.Docs</i> and am currently unaware of the services your section offers. I would appreciate being added to your mailing list for future.	Done! See comment on 121!
97	It sounds like an old, broken record, but the delays in enacting the Regulations and approving AS/NZS 3788 are quite unacceptable. Why is it that AS/NZS 3788, which is a New Zealand Standard, has no legal standing in this country?	AS/NZS 3788:1996, Pressure equipment - in-service inspection, has status of a joint Australian/New Zealand Standard. We will, however, continue to keep you informed on PECPR progress through <i>Safety Lines</i> .
100	We find Engineering Safety division very obliging.	
104	Always receive immediate advice/response. Good service provided.	
110	The revised Code of Practice for Passenger Ropeways really is now becoming urgent, though I understand the hold-up is a result of delayed Regulations.	Same comment as 57.
111	Generally happy with service.	
115	I've completed this from the viewpoint of our joint activity with regard to PECPR requirements/ISO 9000. Hope this is of help.	See comment on 157.
117	It appears that rulings are made by OSH, for example on the kW of limited attendance boilers, on an ad hoc basis to suit the requirements of the employer - little, or no input is sought from the employee, or the applicable union.	All of the codes of practice are prepared and drafted by the Code Committees, representing all interested parties from the particular industry. <i>The Approved Code of Practice for Design, Safe Operation, Maintenance and Servicing of Boilers</i> in particular has, during the course of its preparation, included input from the union representatives.
121	I have never used Engineering Safety services. What do you offer in services? I am unaware of your role.	Engineering Safety is a section within OSH's Strategic and Business Development Unit. We are responsible for administering the Pressure Equipment, Cranes and Passenger Ropeways Regulations (draft PECPR). Our functions include: <ul style="list-style-type: none"> - drafting and administering of regulations, codes of practice and industry guidelines, in consultation with key outside organisations,

Survey Number	Client comment!	Our little clarification!
		<ul style="list-style-type: none"> - auditing inspection bodies and other organisations concerned with PECPR equipment, - participation in drafting joint Australian/ New Zealand Standards, - assisting Standards New Zealand in adoption of overseas standards in New Zealand, - monitoring the competence of personnel involved with design verification, inspection and operation of PECPR equipment, - recognition and monitoring the competence of overseas organisations that carry out inspections of PECPR equipment for import into New Zealand, - monitoring accident investigation reports, - providing advice to industry, OSH branches, other government departments, inspection bodies, etc.
122	Some companies really try hard. Some pretend to, in front of OSH. OSH should attack the pretenders and help the tryers more.	Thank you - we have forwarded this comment on to the OSH branches.
123	We have only received one copy of the above publication. However, when requested to be placed on the mailing list, a copy was forwarded directly.	
127	We do not have a lot of contact, but are well satisfied with the service received on the few occasions we have had contact.	
128	My responses to above questions are based on one inquiry, which resulted in me being advised to discuss the matter with a local IQP. <i>Safety Lines</i> is a great service - copies are distributed to engineering managers within this organisation. Our local OSH inspector maintains excellent contact and regularly brings draft documents etc. to our attention.	Thank you, we have passed on the message.
134	Although we have not used the service very much, when we have, the above answers reflect the quality of service received.	

Survey Number	Client comment!	Our little clarification!
136	We have not had a need this year to call on the services of Engineering Safety, but do use the service from time to time.	
151	I do not even have a direct contact number for Engineering Safety staff. Have only needed info once, but used an alternate source.	Please note that our contact details are published on page 3 of this issue of <i>Safety Lines</i> .
157	Enquiries have mostly been for written information, therefore not all questions really relevant. Generally pretty good.	Presumably, the comment relates to composition of our questionnaire. Once more, we are grateful for your feedback, regardless of combinations of questions answered.
162	An 0800 contact number would be most helpful.	Thank you. This idea has been passed on to relevant officials within OSH and will be considered in the future.
166	As this site is a large manufacturing site information from Safety Lines is used and posted on notice boards around the site to inform the employees of issues brought forward.	
167	Most satisfied, particularly at the top level, i.e. Bryn George and also Geoff Edwards.	✓
169	We have not required the services of Engineering Safety staff in the last 12 months.	
174	We don't use the Engineering Safety services as we are a union employing organisers and administration staff.	
180	Every enquiry has been answered with a smile and technical expertise. Keep up the good work!	✓
181	Don't use services of ES!	

THE WIZARD OF ID



Brant parker and Johnny hart



Safety Alert: Crane Maintenance

Just a reminder of the value of carrying out regular maintenance on cranes as per the manufacturer's instructions and/or experience gained in operating a particular crane.

Load Dropped

A fault occurred on a hydraulic mobile crane. The internal expanding clutch of the unit failed to engage when the externally contracting brake disengaged resulting in the load dropping to the ground.

The cause was found to be in the hydraulic slave cylinders which activate the clutch—one had seized due to internal corrosion and the other cylinder showed evidence of corrosion.

Near Miss

A crane hook was stripped and very severe corrosion was found on the thread securing the main nut to the shank of the hook and on the hook itself. It appeared that water had penetrated down the thread to cause the corrosion.

CBIP Courses

CBIP (Certification Board for Inspection Personnel) have provided details of the following courses to be held over the remainder of 1997 at HERA Training Centre.

Activity	Date
Welding Inspection	1-5 September 17-21 November
Radiographic Theory and Interpretation of Weld Radiographs	22-26 September
Surface Methods	4-7 August
Ultrasonic Testing Theory and Ultrasonic Weld Testing	6-10 October
Management Appreciation in Non-destructive Testing	22 October
Coatings Inspection Home study Block Courses	All year 21-22 August

For further information please contact:

Peter Hayward
CBIP
PO Box 76-134
Manukau City
Ph: (09) 262 2885 Fax: (09) 262 2856

Revision of Australian Pressure Equipment Standards

The following article appeared in *TAS* December 1996. It will be of interest to readers as the affected standards are commonly used for pressure equipment in New Zealand

“Pressure Equipment Standards Manufacture

*Committee ME/I: Pressure Equipment
Chairman: Lucian Kent
Projects Manager: Rex Blatchford*

The ongoing restructure of the pressure equipment standards is now nearing completion. This restructure was required because the four main pressure equipment standards—Boilers (AS 1228 and AS 1797), Pressure Vessels (AS 1210) and Pressure Piping (AS 4041), all contained common information on welding, heat treatment, non-destructive examination and installation.

As these standards were revised and amended from time to time by different subcommittees, differences often occurred between them. This work involved

much duplication and created confusion for the users of the standards.

As part of this restructure, standards have already been published to cover welding and brazing qualification (AS 3992), examination and testing (AS 4037) and installation (AS 3892).

The work is now nearing completion with the impending publication of a standard for pressure equipment manufacture. The standard sets out in 100 pages the manufacturing requirements for forming, cutting, assembly, welding, heat treatment, forging and casting.

The removal of this material from the main pressure equipment standards has necessitated a general review of these standards and new editions of the boiler and pressure vessel standards will be published early in 1997. Due to the high workload of the committee, the next edition of the pressure piping standard has been deferred to early 1998.

Continued overleaf...

The restructure will provide common requirements for all pressure equipment standards, reduce cost to industry by avoiding the duplication of common requirements and lead to more efficient Standards making.”

Since release of the above report in *TAS*, Engineering Safety have been given the following publication update:

- The new standard AS 4455 *Pressure Equipment—Manufacture*, early June 1997.
- The revised standard AS 1210 *Pressure Vessels*, early July 1997.
- The revised standard AS 1228 *Pressure Equipment—Boilers*, which combines the current edition of AS 1228 *Boilers—Water tube* and AS 1797 *Boilers—Fire tube, shell and miscellaneous*, into a single standard, early July 1997.

Back End Gas Temperatures for Shell Boilers Manufactured and Approved Prior to 1982

It has been brought to the attention of Engineering Safety that the *Approved Code of Practice for the Design, Safe Operation, Maintenance and Servicing of Boilers* has an anomaly in Part 1.11 ‘Shell-Type Steam Boilers Tube Plate Temperature’ in that no provision is made for design shortcomings which may exist in boilers designed prior to the 1982 issue of BS 2790.

Prior to the 1982 issue, BS 2790 gave no specific requirements for thermal design and, where designated maximum allowable gas temperatures have been given by the manufacturer, they may be significantly higher than is now permitted by later versions of this standard. This holds dangers for shell boilers as excessive gas temperature at the boiler back end may cause cracking of tube plate ligaments and cracking of welds and tube ends at the tube plate attachments.

When applying the code of practice, Clause 1.11.2. could be interpreted as permitting the continued acceptance of designated maximum gas temperatures established for boilers designed in accordance with these earlier issues of BS 2790. This is not the intention and **boilers designed to the earlier issues of this standard must have a maximum value for the gas temperature determined in accordance with the latest version of BS 2790, irrespective of whether they have an existing maximum designated temperature.**

A related factor, which is important to consider when checking back end gas temperatures, is the suitability of the pyrometer used to calibrate the gas temperature sensor. An unsuitable pyrometer may give a temperature reading that is significantly lower than the actual gas temperature.

Engineering Safety draws readers attention to Clause 1.11.4 of the *Approved Code of Practice for the Design, Safe Operation, Maintenance and Servicing of Boilers*. This requires “**annual calibration checks of the pyrometer measuring the combustion chamber gas temperature, using an accurately calibrated multishield high velocity suction pyrometer when the boiler is operating at full load under maximum firing conditions**”.

Safety Lines is a publication of the Engineering Safety Unit of the Occupational Safety and Health Service, Department of Labour, PO Box 3705, Wellington.

Phone (04) 915 4461

Fax (04) 915-4370 or (04) 499-0891.

Editor: Peter Williamson

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IN THIS ISSUE:

Qualifications for the New Zealand Crane Industry	1
Swift Survey Results	2
New Design Verifying Service	2
Engineering Safety Staff Contact Details	3
Safety Alert: Crane Maintenance	9
Revision of Australian Pressure Equipment Standards	9
CBIP Courses	9
Back End Gas Temperatures for Shell Boilers Manufactured and Approved Prior to 1982	10

Next issue : 30 August 1997