



The Department of Labour has recently released safety information relating to the use of hydrocarbon refrigerants and an update on the its enquiry on the Tamahere coolstore fire which occurred on 5 April 2008 killing one fire fighter and injuring seven others.

The Department of Labour's safety information and update are reproduced in full in this issue of ELECTRON.

- The Department of Labour has advised that if hydrocarbon refrigerants escape from refrigeration and storage systems they can mix with air to form a potentially explosive mixture.

The Department of Labour has noted the need for safe design of plant and control systems, adequate maintenance and safe operation practices when hydrocarbon refrigerants are being used.

The Department of Labour has advised that the safety information it has produced is relevant to electricians, refrigeration engineers, contractors, coolstore operators and industries involved in refrigerated food storage.

- I would urge all electrical workers involved with the refrigeration sector of the industry to note the advice provided by the Department of Labour.



A handwritten signature in black ink, appearing to read 'John Sickels'.

**John Sickels**  
RegistrarManager  
EWLG

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ELECTRON is published by the Electrical Workers Licensing Group, the service unit of the Department of Building and Housing for the Electrical Workers Registration Board. If you have any enquiries or comments on this newsletter please contact:

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# Availability of documents

To enhance the question of accessibility and transparency of documentation and decisions of the Board, readers are reminded that agendas for Board meetings are posted on the Board's website at [www.ewrb.govt.nz](http://www.ewrb.govt.nz) one week prior to any meeting. In addition meeting agendas and minutes are available from the Registrar on request. Discussion papers and complaint hearing decisions that are not subject to Board Publication Orders are also available from the Registrar on request.

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## Department of Labour media release on hydrocarbon refrigerants

*The following media release has been provided by the Department of Labour.*

"Department issues safety information and Tamahere fire inquiry update.

The Department of Labour today issued information on the safe use of flammable hydrocarbon refrigerants and an update on its investigation into the fire at the Icepak coolstore at Tamahere.

A hydrocarbon refrigerant was used at the coolstore, which exploded and caught fire on April 5, killing one fire-fighter and injuring seven others.

Department of Labour regional manager Ona de Rooy said the fire was a traumatic event for everyone involved, and the Department's thoughts were with the victims and their families.

Ms de Rooy said the Department would not comment on the cause of the fire until its investigation was complete. However, she confirmed that a hydrocarbon refrigerant was used at the Icepak coolstore, and that this was an important line of inquiry for the investigation team.

The information gathering stage of the investigation was nearly completed, she said. "This stage has taken time because the investigation is substantial, technically complex and involves a number of parties." These include the Police, NZ Fire Service, Environmental Risk Management Authority, the Waikato District Council, private companies involved in running and maintaining the coolstore, and several insurance companies.

The investigators have been able to draw on the expertise of the Department's hazardous substances advisers and occupational scientists. They have also brought in an external fire investigation expert and have accessed experts to help prepare the safety information on hydrocarbon refrigerants.

"The following stage will be to analyse the information to identify what caused this explosion and fire, and what could have been done to prevent it," Ms de Rooy said. "Because of the complexity of the investigation we cannot put a time frame on when we will complete this stage."

The final part of the investigation will be to decide what response is appropriate. The Department will not speculate on what this might be at this stage.

Meanwhile, the Department has prepared a fact sheet summarising the safety information, and is circulating it to relevant industry groups and associations. It is also working with the Fire Service to ascertain the number of industrial sites using hydrocarbon refrigerants, and the scale of use.

Labour Department Principal Adviser on Workplace Health and Safety Bob Hill said that if hydrocarbon refrigerants escaped from refrigeration and storage systems they could mix with air to form a potentially explosive mixture. "So it is essential to have safe design of plant and control systems, adequate maintenance, and safe operating practices when using hydrocarbon refrigerants."

If coolstore operators have any concerns about the safety of their plant or the application of any of the relevant standards they should consult with a suitably qualified engineer, as well as the Department's new fact sheet.

For further information contact Ann Howarth on 04 915 4119 or 0274 422141.

15 July 2008

# Safe use of hydrocarbon refrigerants

The following article has been provided by the Department of Labour

“IF HYDROCARBON REFRIGERANTS ESCAPE FROM REFRIGERATION AND STORAGE SYSTEMS THEY CAN MIX WITH AIR TO FORM A POTENTIALLY EXPLOSIVE MIXTURE.

THIS FACT SHEET PROVIDES INFORMATION ABOUT THE NEED FOR SAFE DESIGN OF PLANT AND CONTROL SYSTEMS, ADEQUATE MAINTENANCE, AND SAFE OPERATION PRACTICES.

It is relevant to refrigeration engineers, electricians, contractors, coolstore operators, and industries involved in refrigerated food storage.

## Statutory requirements

The following laws include legal duties that apply to the use of hydrocarbon refrigerants in workplaces. Operators of coolstores and commercial refrigeration systems are advised to seek assistance from a qualified refrigeration expert on how to meet the legal requirements.

- Under the Health and Safety in Employment Act, employers and people “in control of a place of work [building owners, contractors, landlords, tenants etc] must take all practicable steps” to ensure various people are not harmed in the workplace. Taking “all practicable steps” would include complying with relevant standards and regulations.
- All hydrocarbon refrigerants are hazardous substances under the Hazardous Substances and New Organisms Act [HSNO], and are subject to various regulatory controls under the Act. The controls depend on the quantities of the substance and circumstances involved.
- Under the Electricity Act precautions must be taken where flammable gases or vapours may be present, to prevent them being ignited by electrical equipment.
- The Health and Safety in Employment [Pressure Equipment, Cranes and Passenger Ropeways] Regulations 1999 [PECPR] contain specific duties and requirements on certification of the design, manufacture, supply, operation, and repair of pressure equipment used in workplaces. This includes refrigeration systems that exceed 50 kPag. A copy of these regulations is available at [www.legislation.govt.nz/regulation/public/1999/0128/latest/DLM284452.html](http://www.legislation.govt.nz/regulation/public/1999/0128/latest/DLM284452.html)

## Standards

A number of standards provide information on how to design and operate refrigeration systems safely. Copies of the standards are available from

[www.standards.co.nz](http://www.standards.co.nz). [Enter the keywords provided to order or download a copy, or call 0800 782 632.

- AS/NZS 1677.1 Refrigerating systems Part 1: Refrigerant classifications (**keyword 1677.1**)
- AS/NZS 16772 Refrigerating systems Part 2: Safety requirements for fixed installations (**keyword 16772**)
- AS/NZS 24301-9 Set of Standards for the classification of hazardous areas [**keyword 2430**]
- AS/NZS 60079.10:2004 Standard for electrical apparatus for explosive gas atmospheres (**keyword 60079.10**)
- AS/NZS 3823.1.1:1998 Performance of electrical appliances – Airconditioners and heat pumps – Test methods – Non-ducted airconditioners and heat pumps – Testing and rating for performance [**keyword 3823.1**]
- AS/NZS 4041:2006 Pressure Piping [no keyword] or Ansi/Asme 831.3 Refrigerant Piping Standard [**keyword 831.3 and check 'BSI' category**]

## Other precautionary measures

- Always conduct a risk assessment to determine whether it is appropriate to use a flammable gas refrigerant in the particular workplace.
- Only use hydrocarbon refrigerants in the system if this has been approved by the units manufacturer and the refrigerant supplier.
- Do not retrofit a system to use a flammable refrigerant unless the system is designed, or has been properly modified, to be used that way. The unit may need to be recertified to meet PECPR regulatory requirements and may be subject to different HSNO requirements. Check with the Department of Labour’s HSNO and Engineering Safety specialist advisers.
- Ensure that the people who install and maintain equipment that uses hydrocarbon refrigerants are trained and knowledgeable about the regulatory controls and standards.

- Ensure that no potential sources of ignition are used where flammable gas could be present. This includes all electrical equipment not certified for use in hazardous areas.
- All premises, areas, and equipment should have signs to show the nature of any hazardous substances present in the refrigeration system. This includes having Hazchem signs at the entrance to the site to alert outsiders – such as emergency services workers – of the potential dangers.
- Only use hydrocarbon refrigerants in properly ventilated areas and seek competent advice on how to achieve that.
- Include well designed monitoring/isolation systems for individual lines that go into enclosed spaces so that leaks can be picked up.
- The Environmental Risk Management Authority (ERMA) has information about the controls required for the safe use of hydrocarbon refrigerants under the HSND Act. Visit [www.ermanz.govt.nz](http://www.ermanz.govt.nz) or call 0800 376 234.
- For information on issues associated with the Electricity Act visit Energy Safety's website, [www.energysafety.govt.nz](http://www.energysafety.govt.nz).

#### Other useful information:

- Department of Labour approved codes: Approved Code of Practice for Pressure Equipment
- ERMA New Zealand approved codes: Signage for Premises Storing Hazardous Substances and Dangerous Goods
- AS 1210: 1997 Pressure Vessel Code
- AS/NZS 3768:2006 Pressure equipment – In-service inspection (keyword 3788)
- AS 4343: 2005 Pressure Equipment Hazard Levels

Department of Labour – July 2008

Please note: As a summary this fact sheet covers common problems. It will not answer every question and should not be used as a substitute for legislation or legal advice. The Department of Labour takes no responsibility for the results of any action taken on the basis of information on this leaflet nor for any errors or omissions."

#### More information

- The manufacturer or supplier of any hydrocarbon refrigerant, or equipment using hydrocarbon refrigerants, must provide safety data sheets for each hazardous substance involved as well as provide advice on risk mitigation.
- The Department of Labour's HSNO and Engineering Safety specialist advisers can provide information about using hydrocarbon refrigerants in the workplace, and the PECPR requirements. The Department also provides general information on health and safety in the workplace. Visit [www.dol.govt.nz](http://www.dol.govt.nz) or call 0800 20 90 20.

## Limited Certificates for Trainees

*On 23 November 2006 the Electricity Act 1992 (the Act) was amended through the Electricity Amendment Act 2006 (the Amendment Act).*

The Amendment Act makes a number of changes to the electrical registration regime and the Board will play a critical role in the successful implementation of the amended legislation.

The Board has been delegated the responsibility for the registration and licensing of electrical workers.

The Amendment Act includes a number of checks and balances to ensure these responsibilities are

properly discharged. For example, the Board must act in accordance with clear principles guiding registration and licensing. Other accountability mechanisms are outlined as follows:

In line with the guiding principles set down in the Amendment Act the Board has developed proposals for authorising trainees to carry out prescribed electrical work.

The Board proposes;

- (1) to issue limited certificates pursuant to section 78 of the Act; and
- (2) to set terms and conditions for the issuing of limited certificates pursuant to section 78 of the Act; and
- (3) that the terms and conditions for the issuing of Limited Certificates be that the applicant must provide;
  - (i) evidence that the applicant is a trainee pursuant to the section 77(2) of the Act; and
  - (ii) evidence that any safety training, the Board may require workers to complete prior to commencing prescribed electrical work, has been completed; and
  - (iii) a statement from a person, who holds a current practising licence that authorises the person to supervise electrical work, which attests that the trainee will be supervised in a manner which satisfies the requirements of the Act and regulations; and
  - (iv) an assurance that the trainee will work within limits the trainee as specified by the Board; and
  - (v) an assurance that examination(s)/practical assessment(s) relevant to the category of registration to which the trainee is aspiring will be attempted through the duration of any limited certificate that may be issued; and
- (4) that the duration for limited certificates be as shown in the following table

Registration category to which trainee aspiring	Duration of Limited Certificate
Electrician	4 years
Electrical appliance serviceperson	18 months
Line mechanic (all categories)	2 years
Electrical engineer	4 years
Electrical service technician	2 years
Tradesperson	4 years

and be in line with the registration training/experience requirements stated in the Board's May 2008 discussion paper on proposed categories of registration; and

- (5) that any application for the renewal of a Limited Certificate be granted provided the trainee has satisfied the Board that every attempt has been made to fulfil the initial issuing requirements; and
- (6) that Limited Certificates would be subject to cancellation if the Board was satisfied that a trainee;
  - (i) does not satisfy the definition of a trainee pursuant to the section 77(2) of the Act; or
  - (ii) did not complete any safety training, that the Board required workers to complete prior to commencing prescribed electrical work; or
  - (iii) has not complied with supervision instructions from the person, who holds a current practising licence that authorises the person to supervise electrical work, and who attested that the trainee would be supervised in a manner which satisfied the requirements of the Act and regulations; or
  - (iv) has repeatedly worked outside the limits of the certificate; and
- (7) that prior to making any decision in relation to the refusal to renew or cancel a Limited Certificate the Board would;
  - (a) observe the rules of natural justice; and
  - (b) without limiting those rules, give the trainee –
    - (i) notice of any matter that may give the Board cause to refuse to renew or cancel a limited certificate; and
    - (ii) provide the trainee with all information the Board will be considering in relation to the matter; and
    - (iii) reasonable opportunity to make written submissions and be heard on the question, either personally or by the trainees representative.

A copy of the discussion paper "Limited Certificates for Trainees" has been forwarded to all people and organisations that have their name on the Board's mailing lists. The discussion paper can also be viewed on the Board's website at [www.ewrb.govt.nz](http://www.ewrb.govt.nz)

The Board would appreciate any comments about the implications and impact of the proposals in the discussion paper by 31 October 2008. Detail on how to provide comment is provided in the discussion paper. Comments should be sent to:

The Registrar  
Electrical Workers Registration Board  
P O Box 10156  
WELLINGTON  
Or Fax (04) 473 2395  
Or by e-mail to: [trish.tchernegovski@dbh.govt.nz](mailto:trish.tchernegovski@dbh.govt.nz)

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## Examination moderation and marking policy

*In line with the Board's strategic initiative to make all information relevant to the electrical/electronic industry available, the Board has reviewed its policy relating to the moderating and marking of registration examinations.*

During July 2008 a copy of the reviewed policy was forwarded to persons listed as being associated with

training for electrical registration and the policy can be viewed on the Board's website at [www.ewrb.govt.nz](http://www.ewrb.govt.nz)

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## Examination report

*The Board has released a report on the May 2008 examination round to all training providers.*

Candidates achieved an overall pass rate of 84% for the examination round.

The Board has noted that candidates for the Electrical Service Technician level "A" examination experienced difficulties with;

- (a) question 5 which related to the operation of protection devices; and
- (b) question 8 which related to single phase motors.

The Board would like all persons involved in the training and tutoring of people who are aspiring to be registered as Electrical Service Technicians to note the comments in the examination report and take appropriate action.

The following chart summarises the results of the May 2008 examination round:

	Number of candidates	Number of candidates who passed	Percentage passed
ESTA	177	148	83.5
ESTB	100	85	85
E Security	1	1	100
<b>Totals</b>	<b>278</b>	<b>234</b>	<b>84</b>

The May 2008 examination report is available for viewing on the Board's website at [www.ewrb.govt.nz](http://www.ewrb.govt.nz)

# Introducing new evidence sheets for training



*The following article has been provided by the Electrotechnology Industry Training Organisation (ETITO)*

ETITO works hard to ensure that all apprentices are training to a consistent standard, and one of the ways they do this is by moderating workplace assessments.

To meet moderation requirements ETITO needs to ensure that all assessment evidence required for moderation is thorough, and also that it's not difficult for apprentices or assessors to collate this information.

That's why ETITO is pleased to be introducing 'Evidence Sheets'.

The new evidence sheets enable apprentices to collect evidence of their experience by documenting practical tasks completed as they go about a specific job.

This means they can easily generate a collection of evidence of their competency prior to assessment. It's important to note that these evidence sheets don't replace the need to complete the blue report forms in the ETITO Workplace Logbook.

## Where do the evidence sheets come from?

Evidence sheets are being sent on a CD to anyone doing the Electrical Engineering level 2 course, or anyone who has signed a new Training Agreement in 2008 [anyone else wishing to use the evidence sheets should contact their ETITO training manager.]

The CD has an evidence sheet for every compulsory unit standard – so apprentices can look through the CD, choose the unit standard/s relevant to the work they're doing and print out the related evidence sheet/s, complete them and get them signed by their supervisor.

When the apprentice is ready to be assessed in a specific task, they should take a copy of the evidence sheet/s [with any additional evidence] to their assessment.

ETITO requests that all employers make sure their apprentice/s use the evidence sheets.

If you would like to know more about the introduction of these evidence sheets, please contact your ETITO training manager as follows:

**Prasad Joshi** [Moderation, Assessment and Learning]  
Ph: 09 583 1349, Mob: 027 2070314,  
Email: prasadj@etito.co.nz

**Terry Kidd** [Northern]  
Ph: 09 583 1338, Mob: 027 4618384,  
Email: terryk@etito.co.nz

**Brett Piskulic** [Central and West Auckland]  
Ph: 09 583 1344, Mob: 027 4618287,  
Email: brett@etito.co.nz

**Gavin Denby** [Waikato and South Auckland]  
Ph: 07 839 7395, Mob: 027 489 0981,  
Email: gavind@etito.co.nz

**Paul Mitchell** [Bay of Plenty, Hawke's Bay and Poverty Bay]  
Ph: 07 349 3461, Mob: 027 2805243,  
Email: paulm@etito.co.nz

**Paul Craven** [Wellington, Wairarapa, Manawatu, Taranaki and Wanganui]  
Ph: 04 499 7677, Mob: 027 4662402,  
Email: paulc@etito.co.nz

**Marty Matheson** [South Island]  
Ph: 03 365 9252, Mob: 027 4617018,  
Email: martym@etito.co.nz

# Results of complaint hearings

## James Totorewa (E 20035)

A complaint was lodged against Mr James Totorewa (E 20035), an electrician from Wellington, by a homeowner.

It was alleged that Mr Totorewa failed to provide an earth for the earthpin of a socket outlet, left cables located within 2 metres of the manhole unclipped, worked without a practising licence, failed to test, certified non-compliant work and permitted an unauthorised person to do prescribed electrical work.

The Board considered the complaint and found Mr Totorewa guilty of disciplinary offences in that he:

- Contravened section 118(1)(a) of the Electricity Act 1992 by carrying out prescribed electrical work in a negligent manner by failing to earth a socket outlet;
- Contravened regulation 69, by virtue of regulation 87(1)(f), of the Electricity Regulations 1997 by leaving cables, located within 2 metres of any access to space to which a person may gain entry, unclipped and without adequate protection;
- Contravened section 95 of the Electricity Act 1992 by doing prescribed electrical work while not being the holder of a current practising licence;
- Contravened regulation 37(3) of the Electricity Regulations 1997 by failing to test in accordance with section 6 of AS/NZS 3000:2000;
- Contravened section 118(1)(d) of the Electricity Act 1992 by furnishing a false return; and
- Contravened section 118(1)(e) of the Electricity Act 1992 by directing or permitting an unauthorised worker to carry out prescribed electrical work.

Mr Totorewa was censured and fined \$3,500.00 and ordered to pay costs of \$1,000.00.

The Board directed the Registrar to publish a notice in the Gazette and Electron stating the effect of the order against Mr Totorewa.

## Electrician

A complaint was lodged against an electrician from New Plymouth, by a homeowner.

It was alleged that the electrician failed to complete and furnish a certificate of compliance.

The Board considered the complaint and found the electrician guilty of a disciplinary offence in that the electrician;

- Contravened regulation 39(5) of the Electricity Regulations 1997 by failing to complete a certificate of compliance within one day of completion of the work or termination of the contract for work.

The Board censured the electrician and ordered the electrician to pay costs of \$1,000.00.

## Electrical Inspector

A complaint was lodged against an electrical inspector by an employee of the Electrical Workers Licensing Group.

It was alleged that the electrical inspector failed to adequately protect cables, failed to provide a main earth electrode, failed to adequately label a switchboard, failed to test and furnished a false return. It was further alleged the electrical inspector failed to provide adequate supervision to an electrical trainee.

The Board considered the complaint and found the electrical inspector guilty of a disciplinary offence in that the electrical inspector;

- Contravened section 118(1)(d) of the Electricity Act 1992 by furnishing a false return by certifying work without personally testing that work.

The Board fined the electrical inspector \$500.00 and ordered electrical inspector to pay costs of \$500.00.

## Comment

Certifiers of work cannot rely upon tests carried out by others to fulfil their obligation to test the work prior to certification; they must retest this work themselves, which is what the electrical inspector failed to do.

## Electrician

A complaint was lodged against an electrician from Christchurch, by an employee of a property management company.

It was alleged that the electrician failed to ensure the terminals were tight at the main neutral bar of an MCB Board, failed to identify that a socket outlet had exposed

live terminals, failed to adequately protect cables that were left unclipped and unsupported within 2 meters of a manhole, and installed a 230 volt downlight that was touching a ceiling batten. It was further alleged that the electrician furnished a false return by certifying non-compliant work.

The Board considered the complaint and found the electrician guilty of disciplinary offences in that the electrician;

- Contravened regulation 94 of the Electricity Regulations 1997 by leaving exposed live terminals in a roof space; and
- Contravened regulation 69, by virtue of regulation 87(1)(f), of the Electricity Regulations 1997 by leaving cables, located within 2 metres of any access space to which a person may gain entry, unclipped and without adequate protection;
- Contravened regulation 87(4) of the Electricity Regulations 1997 by installing a 230 volt downlight that was touching a ceiling batten; and
- Contravened section 118(1)(d) of the Electricity Act 1992 by furnishing a false return. A certificate furnished for socket outlets, cables and downlights installed contrary to the regulations is a false return.

The electrician was censured and fined \$1,000.00 and ordered to pay costs of \$1,000.00.

### Electrical inspector

A complaint was lodged against an electrical inspector, by an employee of the Electrical Workers Licensing Group.

It was alleged that the electrical inspector transposed the phase and neutral conductors when replacing a revenue meter.

The Board considered the complaint and found the electrical inspector guilty of a disciplinary offence in that the electrical inspector;

- Negligently created a risk to life or limb (electric shock) by transposing phase and neutral conductors; it is not electrically safe.

The electrical inspector was fined \$750.00 and ordered to pay costs of \$1,000.00.

## Comment

The failure to fulfil the duty of care of registered workers to ensure that their work is electrically safe is negligence.

### Electrician

A complaint was lodged against an electrician from Whangarei, by another electrician.

It was alleged the electrician lived an electrical installation without having the mains, main switchboard and main earthing inspected, and interfered with works (network pillar) without the permission of the owner or operator of the works. It was further alleged the electrician worked without a practising licence.

The Board considered the complaint and found the electrician guilty of disciplinary offences in that the electrician;

- Contravened regulation 41(1)(c)(i) of the Electricity Regulations 1997 by carrying out work that involves the mains, main switchboard or main earthing system of an electrical installation that is to be connected to a power supply for the first time, and failing to have this work inspected by a registered electrical inspector before connection to a power supply; and
- Contravened section 95 of the Electricity Act 1992 by doing prescribed electrical work while not being the holder of a current practising licence.

The electrician was fined \$1,500.00 and ordered to pay costs of \$2,000.00.

### Electrician

A complaint was lodged against an electrician from Wellington, by an electrical inspector.

It was alleged that the electrician failed to adequately cover a main switch to protect against direct contact with live terminals, used light blue conductors as phase conductors, failed to label a switchboard, failed to mechanically protect the main earth conductor near the earth stake, and did not have the mains, main earth and switchboard inspected before connection to a power supply.

The Board considered the complaint and found the electrician guilty of disciplinary offences in that the electrician;

- Contravened regulation 94 of the Electricity Regulations 1997 by failing to take all practicable steps to minimise the risk of direct or indirect contact with an electrical installation by failing to adequately cover a main switch to protect against contact with live terminals;
- Contravened regulation 70(2) of the Electricity Regulations 1997 by using light blue conductors as phase conductors;
- Contravened section 118(1)(a) of the Electricity Act 1992 by carrying out prescribed electrical work in an unsatisfactory manner. Failing to label a switchboard to identify the relationship of switches, circuit breakers, fuses, RCDs, and similar electrical equipment to the various sections of the electrical installation is poor and sub-Standard as it contravenes clauses 2.9.4.1 and 2.9.4.2 of AS/NZS 3000:2000;
- Contravened regulation 70(1)(a) of the Electricity Regulations 1997 by leaving cabling without adequate support or fixing and without further protection, meaning they are not conductors that have been located or provided with mechanical protection of suitable strength so that they may operate safely in the particular situation in which they are being used;
- Contravened regulation 41(1)(c)(iii) of the Electricity Regulations 1997 by carrying out work that involves the extension, shortening, or replacement of mains due to the relocation of a main switchboard or point of supply and failing to have this work inspected by a registered electrical inspector before connection to a power supply;
- Contravened regulation 41(1)(c)(v) of the Electricity Regulations 1997 by carrying out work which involves the replacement of a main switchboard with a main switchboard of a different size or type and failing to have this work inspected by a registered electrical inspector before connection to a power supply; and
- Contravened regulation 39(5) of the Electricity Regulations 1997, which requires a certificate of compliance to be issued for prescribed electrical work within one day of completion of the work or termination of the contract for the work.

The Board ordered the electrician's registration to be restricted for twelve months in the following way:

- Limited to work as an electrician and such work can only be undertaken under the condition that when a certificate of compliance is required under the Electricity Regulations 1997 for that work, the electrician shall furnish the Registrar with a copy

of the certificate (for audit of that work at the Registrar's discretion); such certificates are to be supplied to the Registrar on a monthly basis.

The electrician was also fined \$2,600.00 and ordered to pay costs of \$1,500.00.

### Electrical inspector

A complaint was lodged against an electrical inspector from Nelson, by a homeowner.

It was alleged that the electrical inspector connected an electrical installation to a supply of electricity that has been disconnected from the supply of electricity for 6 months or longer without first testing the installation.

It was further alleged that the electrical inspector furnished a false return by ticking the earthing system, switchboard and new mains boxes on a certificate of compliance, even though the electrical inspector had been unable to access the property to carry out the required tests.

The Board considered the complaint and found the electrical inspector guilty of disciplinary offences in that the electrical inspector:

- Contravened regulation 43A of the Electricity Regulations 1997 which requires a person who connects an electrical installation to a supply of electricity that has been disconnected from the supply of electricity for 6 months or longer must at the time of making the connection:
  - > Ensure the polarity of the supply is correct; and
  - > Verify the safety of the revenue meters and associated load control fittings of mains; and
  - > Verify that there is a main earthing system, if the supply is from a MEN supply; and
- Contravened regulation 41(6) of the Electricity Regulations 1997 which requires, that where a certificate of compliance is certified by an electrician and the inspection section is completed by an electrical inspector, the electrical inspector is certifying that
  - > The fittings on which the work had been carried out are electrically safe. The electrical inspector certified that the electrical inspector had inspected the earthing system on a certificate of compliance but did not enter the property, and did not inspect the main earth to confirm whether or not it was electrically safe; and

- > The electrical inspection has been carried out in accordance with the Electricity Regulations 1997; by completing the inspection details on the certificate of compliance, the inspector certified that he had inspected the Switchboard and Earthing System, when he did not enter the property.

The electrical inspector was censured and fined \$350.00 and ordered to pay costs of \$1,000.00.

### Electrician

A complaint was lodged against an electrician from Palmerston North, by an employee from the Electrical Workers Licensing Group.

It was alleged that the electrician failed to complete and furnish a certificate of compliance within the required timeframes. It was further alleged that the electrician did not complete an insulation resistance test even though electrical inspector recorded an infinity test result on a certificate of compliance.

The Board considered the complaint and found the electrician guilty of disciplinary offences in that the electrician:

- Contravened section 118(1)(d) of the Electricity Act 1992 by neglecting to furnish a return required by an enactment relating to prescribed electrical work. Regulation 40(2) requires an electrician to give a certificate of compliance to either the owner of the fittings or the occupier of the premises within twenty working days of it being issued; and
- Contravened section 118(1)(d) of the Electricity Act 1992 by furnishing a false return. The requirements for a true return include a requirement under regulation 37(7)(b) of the Electricity Regulations 1997 for a certificate of compliance to accurately certify that the work has been done in accordance with the Electricity Act 1992 and the Electricity Regulations 1997.

The electrician was fined \$750.00 and ordered to pay costs of \$1,000.00.

### Electrician

A complaint was lodged against an electrician from Auckland, by another electrician.

It was alleged that the electrician left exposed TPS cabling, and TPS cabling located inside grey conduit,

lying on top of (or directly below) the level of the ground, certified non-compliant work, and failed to complete a certificate of compliance within one day of completion of the work or termination of the contract for work.

The Board considered the complaint and found the electrician guilty of disciplinary offences in that the electrician:

- Contravened regulation 69A of the Electricity Regulations 1997 by leaving exposed TPS cabling, and TPS cabling located inside grey conduit, lying on top of (or directly below) the level of the ground without further protection. Failing to protect against indirect contact with parts of an installation which are live is poor and sub-Standard as it contravenes clause 1.7.4.1 of AS/NZS 3000:2000;
- Contravened regulation 37(1) of the Electricity Regulations 1997 by failing to ensure conductors or fittings on which prescribed electrical work has been done, are tested to ensure the operational safety of the completed work; and
- Contravened section 118(1)(d) of the Electricity Act 1992 by furnishing a false return. The requirements for a true return include a requirement:
  - > Under regulation 39(6)(a) the person who certifies the work must personally test that work in accordance with regulation 37 of the Electricity Regulations 1997;
  - > Under regulation 39(7)(a) the fittings on which the work has been done have been tested and are electrically safe; and
  - > Under regulation 39(7)(b) the work must have been done in accordance with the Act and Regulations.

The electrician was fined \$1,500.00 and ordered to pay costs of \$1,500.00.

### Electrician

A complaint was lodged against an electrician from Christchurch, by a homeowner.

It was alleged that the electrician furnished a false return by certifying the installation of an air conditioning unit which had non-compliant wiring.

The Board considered the complaint and found the electrician guilty of a disciplinary offence in that the electrician:

- Contravened section 118(1)(d) of the Electricity Act 1992 by furnishing a false return. The requirements for a true return include requirements:
  - > Under regulation 39(7)(a) of the Electricity Regulations 1997 the fittings certified must be electrically safe. Cables that have not been adequately protected does not ensure the fittings are electrically safe; and
  - > Under regulation 39(7)(b) of the Electricity Regulations 1997 the work must have been done in accordance with the Act and Regulations. Cables that are not adequately protected contravene regulations 69, 70 and 87 of the Electricity Regulations 1997.

The electrician was fined \$500.00 and ordered to pay costs of \$1,000.00.

### Electrician

A complaint was lodged against an electrician from Tauranga, by a Line Mechanic.

It was alleged that the electrician worked without a practising licence and/or without current safety training.

The Board considered the complaint and found the electrician guilty of disciplinary offences in that the electrician:

- Contravened section 95 of the Electricity Act 1992 by doing prescribed electrical work while not being the holder of a practising licence; and
- Contravened regulation 26(3) of the Electricity Regulations 1997 by working without completing a safety training refresher course within the preceding 24 months.

The electrician was fined \$750.00 and ordered to pay costs of \$1,000.00.

### David John Coveny (E3939)

A complaint was lodged against David John Coveny, an electrician from Taupo, by an electrical inspector.

It was alleged that Mr Coveny worked without a practising licence and/or without current safety training.

The Board considered the complaint and found Mr Coveny guilty of disciplinary offences in that he:

- Contravened section 95 of the Electricity Act 1992 by doing prescribed electrical work while not being the holder of a practising licence; and
- Contravened regulation 26(3) of the Electricity Regulations 1997 by working without completing a safety training refresher course within the preceding 24 months.

Mr Coveny was fined \$1,250.00 and ordered to pay costs of \$1,500.00.

The Board directed the Registrar to publish a notice in the Gazette and ELECTRON, and advise the NZPA, stating the effect of the order against Mr Coveny.

