

energy

Bulletin

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New RCD Campaign – No RCD means no second chance

EnergySafety has launched a new advertising campaign to highlight the importance of installing at least two RCDs and testing them regularly.

In the past 17 years, 29 people have been electrocuted in homes in Western Australia. Of these, 23 deaths could have been prevented if RCDs had been fitted.

The advertising campaign, launched on the 16 January 2011, targets all home owners, landlords and tenants, not just those selling or renting properties. The campaign covers television, radio, press and online advertising. It aims to persuade the public to install two RCDs and to test them every three months.

EnergySafety's advertising campaign features two hard-hitting television commercials appealing to the emotions of parents, grandparents and guardians to install RCDs.

The advertising will show the audience that the dangers are often hidden and the only device that can give a family member a second chance at life is an RCD.

The campaign will run over a 12 week period.

Since 2000, it has been compulsory for all new homes to have at least two RCDs fitted as part of the initial electrical installation.

New legislation, introduced in August 2009 requires people selling their home and landlords to install a minimum of two RCDs to protect all power and lighting circuits.

Home sellers are required to install the RCDs before the sale of their house, while landlords must install the devices before a new tenant takes up residency or in any case by 9 August 2011.

Two RCDs must be installed to avoid total darkness and loss of all power if one RCD operates. It also reduces the possibility of spurious operation caused by low-level leakage current in some appliances.

Electrical contractors attending properties constructed prior to 2000 may take the opportunity to draw their client's attention to the campaign and suggest they install RCDs, even if they have no immediate intention to sell or lease.

A letter has been provided from the Director of Energy Safety for electrical contractors to provide to home owners and business owners to help inform clients about the importance of installing two RCDs.

It is also an opportune time to draw their attention to the need to install hard-wired smoke alarms.

These devices save lives and are a must in any home.

For further details on RCDs see www.energysafety.wa.gov.au/rcd and for smoke alarms contact FESA or visit www.fesa.wa.gov.au



KEN BOWRON
DIRECTOR OF ENERGY SAFETY

EnergySafety



Overview of activities 2009-10

Introduction

EnergySafety is Western Australia's technical and safety regulator for the electricity industry and most of the gas industry.

EnergySafety is a Division of the Department of Commerce. Ken Bowron is the Executive Director of EnergySafety and has the statutory title of Director of Energy Safety.

EnergySafety comprises three Directorates:

1. Gas Directorate, headed by David Allan;
2. Electricity Directorate, headed by Don Saunders; and
3. Business Services Directorate, headed by Joe Bonfiglio.

The principal functions of EnergySafety can be summarised as:

- administering electricity and gas technical and safety legislation and providing policy and legislative advice to the Minister and Government;
- setting and enforcing minimum safety standards for electricity and gas networks;
- enforcing natural gas and LP Gas quality standards;
- for the purpose of ensuring satisfactory billing of consumers by gas suppliers, administering the regulatory scheme that determines the "higher heating value" of natural gas in distribution systems subject to

the commingling (mixing) of gas from different sources;

- providing technical advice and support to the Economic Regulation Authority (ERA) and the Energy Ombudsman;
- at the request of the ERA or Energy Ombudsman, investigating the performance of electricity and gas network operators, particularly in respect of energy supply reliability and quality;
- setting and enforcing minimum safety standards for consumers' electrical and gas installations;
- setting and enforcing safety and energy efficiency standards for consumers' electrical and gas appliances;
- licensing electrical contractors, electrical workers and gas fitters and carrying out accident investigations;
- promoting electricity and gas safety in industry and the community; and
- promoting energy infrastructure security and resilience.

EnergySafety derives most of its statutory functions through the Director of Energy Safety, an independent statutory office (established 1 January 1995) held by the head of EnergySafety. Since its inception in 1995 as part of the first major restructuring of the State's energy utilities, EnergySafety has had a busy corporate life and has seen its functions considerably expanded to include *inter alia* electricity and

gas network regulation, energy efficiency regulation, natural gas higher heating value regulation and critical energy infrastructure protection.

As part of these changes, EnergySafety became fully industry funded from 2006-07 following the passing of legislation and the subsequent publishing in the *Government Gazette* on the *Energy Safety Levy Notice 2006*. This mirrored what other major jurisdictions had also done and 2006-07 was the first financial year under which EnergySafety was fully industry funded.

Operational work including compliance enforcement activities

Wood Pole Audit

The EnergySafety audit review of Western Power's management of its 620,000 wood poles was published in May 2009. Order No. 01-2009 was issued on Western Power in September 2009 to correct major deficiencies identified in the review. Even though the Order addresses the inspection practice EnergySafety remains concerned about the safety of the old, untreated and unsupported jarrah wood distribution poles which are well outside the average service life.

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Toodyay bushfire

A major bushfire occurred at Toodyay on 29 December 2009 causing significant loss of homes and other property damage. The area of origin was in the vicinity of a Western Power wood pole power line. EnergySafety investigated whether electricity started the fire. A final report was released in August 2010 which concluded that the bushfire was started by a Western Power pole falling over and bringing its high voltage conductor into contact with the ground.

Bushfire investigations

EnergySafety carried out major investigations into significant bushfires allegedly caused by Western Power's electricity distribution system. The investigation reports will be published on the EnergySafety website as the investigations are concluded.

Gas fitter training standards

EnergySafety recognised that compliance with national competency standards for training of gas fitters complies with the requirements to obtain a Class G gas fitting permit in WA. The introduction of the CPC08 competency training package provided the opportunity to evaluate all existing gas fitting training in WA. It was determined that the current training was not to the standard required by EnergySafety for applicants to be awarded a gas fitting permit. In consultation with the gas fitting training providers, EnergySafety has provided input that has resulted in a significant improvement in the training being provided by the training organisations.

Improvement in work procedures

A safety gap analysis on networks in reference to AS 4645-2008:

Gas Distribution Networks was performed leading to improved work procedures for network personnel.

Liquefied petroleum gas (LPG) cylinder fire evaluation

An LPG cylinder fire behaviour research and testing programme of automotive and residential cylinders was undertaken. This has led to an improved understanding of the behaviours of thin walled LPG cylinders in fires. These outcomes can now be used to help validate revision of relevant standards in the future as well as provide interim guidelines for securing residential 45kg cylinders, particularly in bushfires as well as normal residential house fire situations.

Increased demand for licensing services

The Licensing Office at EnergySafety again experienced a high volume of electrical and gas licence applications. The increased workload was managed well by staff of the Licensing Office.

Electrical Licensing

As at 30 June 2010, there were **24,910** electrical workers, **4,128** electrical contractors and **237** in-house licence holders registered.

The Electrical Licensing Board grants licences to eligible electrical operatives and conducts competency assessments of operatives when necessary. It also recommends disciplinary action when appropriate.

Members of the Electrical Licensing Board as at 30 June 2010 were:

- Mr K McGill – Chairman.
- Mr J Murie – representing the interests of electrical workers.
- Mr P Beveridge – representing the interests of electrical contractors.
- Mr G Grundy – representing the interests of electrical workers with restricted licences.
- Mr G Bryant – representing the

interests of large businesses, who are consumers of electrical services.

- Mr P Mittonette – representing the interests of small businesses, who are consumers of electrical services.
- Ms L McGuigan – a residential consumer of electrical services.
- Mr D Saunders – nominated by the Director of Energy Safety.

The Electrical Licensing Board met **23** times during the year.

Gas Licensing

As at 30 June 2010 there were **4,894** persons registered holding a gasfitting permit in WA, including **1,509** active certificates of competency holders.

The Gas Licensing Committee, operating under the delegation of the Director of Energy Safety, considered applications for licences to gas operatives. Routine licenses for gas operatives were dealt with by licensing staff under delegated authority.

Members of the Gas Licensing Committee as at 30 June 2010 were:

- Mr J Bonfiglio – Chairman.
- Mr K Hooper – Chief Gas Inspector.
- Mr D Robertson – Principal Engineer Gas Utilisation.

The Gas Licensing Committee met **25** times during the year.

Prosecutions

The following tables summarise prosecutions finalised during 2009-10. Prosecutions follow investigations by Inspectors, then review and authorisation by senior management of EnergySafety. The investigations are often initiated by an Inspector of the electricity and gas network operators, as part of their consumer electrical or gas installation inspection work.

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Summary of prosecution actions for breaches of electricity related legislation

Legislation	Breach	Number of offences	Penalties (\$)
Electricity Act 1945	EA Section 25 – Failed to ensure service apparatus was in a safe and fit condition for supplying electricity	2	\$100,000
Electricity (Supply Standards & System Safety) 2001	E(SS&SS)R, 10(1) – Allowing work to proceed on the cable ends in an unsafe manner	1	\$15,000
Electricity (Licensing) Regulations 1991	E(L)R, 19(1) – Carried out electrical work whilst not authorised by a licence or permit	18	\$22,800*
	E(L)R, 33(1) – Carried out business as an electrical contractor without a licence	8	\$5,600*
	E(L)R, 49(1) – Carried out substandard electrical work	16	\$13,600
	E(L)R, 50A – Permitted unsafe wiring or equipment to be connected to an electrical installation	4	\$1,600
	E(L)R, 50(1) – As an employer, failed to ensure effective supervision of an apprentice	2	\$3,500
	E(L)R, 51(1) – Failure to submit a Preliminary Notice to the relevant Network Operator	3	\$3,300
	E(L)R, 52(1) – Failed to submit a Notice of Completion for completed electrical work	102	27,300
	E(L)R, 52(3) – Submitted a Notice of Completion to the relevant Network Operator when the electrical installing work was not complete	9	\$13,000
	E(L)R, 63(1) – Not providing effective supervision for a third year apprentice, which resulted in receiving an electric shock and burns	1	\$2,000
	E(L)R, 45(1) – Failed to include the EC licence number in an advertisement	1	\$450
	E(L)R, 59(1)(c) – Wrongfully representing himself as being the person referred to in an electrical licence	1	\$500
	TOTAL	168	\$208,650

Summary of prosecution actions for breaches of the gas related legislation

Legislation	Breach	Number of Offences	Penalties (\$)
Gas Standards Act 1972	Section 13A(2) – Carried out gasfitting work while not holding a certificate of competency, permit or authorisation allowing him to do so	8	\$26,000*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 8 – Failed to notify the Director in writing of the new address within 14 days of the change	1	*
	Regulation 18 – Failed to ensure every part of the gas installation complied with the requirements in regulation 32	1	\$3,500*
	Regulation 18(2)(a)(ii) – Failed to ensure every part of the gas installations was safe to use	1	\$2,500*
	Regulation 26(1)(a) – Failed to ensure the requirements of the regulations as to pressure testing were satisfied and made gas-tight	1	*
	Regulation 28(2) – Failed to fit a compliance badge to the gas installation	1	*
	Regulation 32 – Failed to ensure installation complied with the codes & standards	1	*
	TOTAL	14	\$32,000

* Global Penalty (more than one offence)

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Summary of Infringement notices issued for breaches of electricity related legislation

Legislation	Breach	Number of offences	Penalties (\$)
Electricity Act 1945	EA 33B(2) – sold a prescribed electrical appliance without Australian approval	3	\$9,000
	EA 33F – exposed for sale/hire electrical apparatus without an energy efficiency label	3	\$4,500
Electricity (Licensing) Regulations 1991	E(L)R, 19(1) – carried out electrical work without holding an electrical workers licence	1	\$500
	E(L)R, 45(1) – Failed to ensure electrical contractor's number appeared in advertisement	1	\$1,000
	E(L)R, 52(1) – failed to submit a Notice of Completion for completed electrical work	5	\$4,000
	E(L)R, 52(3) – submitted a Notice of Completion to the relevant Network Operator when the electrical installing work was not complete	29	\$40,000
	TOTAL		42

Summary of Infringement Notices issued for breaches of gas related legislation

Legislation	Breach	Number of Offences	Penalties (\$)
Gas Standards Act 1972	Section 13A(2)	4	\$8,000
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 18(2)(a) – Failed to ensure every part of the gas installation was safe to use	30	\$12,200
	Regulation 20(1)(b) – Failed to ensure the appliance was installed in accordance with the manufacturer's installation instructions	8	\$3,200
	Regulation 23 – Failed to record service information in required manner	1	\$400
	Regulation 26(1)(a) – Failed to ensure the requirements of the regulations as to pressure testing were satisfied and the system is made gas-tight	14	\$6,000
	Regulation 28(2) – Failed to fit a compliance badge to the gas installation	13	\$5,200
	Regulation 28(3) – Failed to give a notice of completion of the gasfitting work in accordance with this regulation	11	\$4,400
	Regulation 34(1) – Failed to keep records in relation to each gas fitter employed	1	\$250
	Regulation 34(4) – Failed to make records available for inspection by an inspector during normal office hours	1	\$250
	TOTAL	83	\$39,900

Major Policy Work

National Regulatory reform Projects

During 2009-10 EnergySafety continued work with electrical and gas safety regulators of other jurisdictions to make significant contributions to various national reform projects.

Significant progress has been made in developing uniform national regimes to harmonise electrical appliance safety approvals; gas appliance safety approvals; electrical and gas occupational licensing; and the gas and electrical supply technical and safety regulation.

Standards development work

During the year, EnergySafety played a significant role in the development of Australian Standards, covering subjects such as gas installations and industrial and commercial gas-fired appliances.

Committee participation

Aside from major work on several key technical standards committees, EnergySafety continued to be involved in a number of national regulatory coordination and other technical standards bodies.

The following is a summary list:

- National Regulatory Coordination Bodies
 - Electrical Regulatory Authorities Council (ERAC)
 - Gas Technical Regulators Committee (GTRC)
 - National Equipment Energy Efficiency Committee (Committee E3)
- National Standards Councils, Boards and Committees
 - Council of Standards Australia (representing the Government of WA)
 - Electrotechnology Standards Sector Board

- AG6 Gas Installations
- AG5 Industrial Gas Appliances
- AG8 Gas Distribution
- AG9 Natural Gas Vehicle Technical Standards
- AG10 Specification for Natural Gas Quality
- AG11 Gas Component & Industrial Equipment Standards Committee
- CH-038 Liquefied Petroleum Gas
- EL1 Wiring Rules and related sub-committees
- EL2 Electrical Appliance Safety
- EL4 Electrical Accessory Safety
- EL11 Electricity Metering
- EL42 Renewable Energy Power Supply Systems
- EL43 High Voltage Electrical Installations
- ME46 Gas Fuel Systems for Vehicle Engines.

Safety statistics: Serious accidents and fatalities

The following were reported to EnergySafety during 2009-10:

Electric shocks	1,060
Serious electrical accidents	14
Fatalities	2

The following data is provided for accidents (based on the date of the accident). This data may not include all accidents due to time lags in reporting such accidents.

Serious electricity related accidents notified per million population*

Year	Number	Five Year Average
2000-01	11	15
2001-02	12	15
2002-03	18	16
2003-04	16	15
2004-05	23	16
2005-06	15	17
2006-07	9	16
2007-08	10	15
2008-09	9	13
2009-10	6	10

* Electrical shock incidents resulting in the person requiring treatment at a medical facility.

The serious electricity related accidents included two fatalities in which electricity was found to be the cause:

- A child crawled into a hole in the wall between the lounge room and carport. As he entered the hole he placed his right hand on the earthed metallic exposed wall frame of the house and placed his left hand on or grasped a flexible extension cord, which was directly outside the hole in the carport. The flexible extension cord had a pin-sized hole which had penetrated the cord's sheath and the primary insulation of the active conductor. The deceased received a fatal electric shock of up to 240 volts ac. The flow of electric current passed through his body after he made simultaneous contact with the metallic earthed house frame and the live wet flexible extension cord. No RCDs were fitted to the house.

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- A man received a fatal electric shock when he inadvertently made simultaneous contact with the incoming side of the main switch and the earthed metal main switchboard enclosure of a building under demolition. The outgoing circuits from the switchboard had been previously removed but the 240/415 volt supply was still connected to the incoming side of the main switch. It appeared that the man was trespassing on the property and attempting to steal electrical equipment from the main switchboard.

Gas related incidents and fatalities

Serious accidents (based on date of entry into database): 6
Fatalities: 1

Serious gas related accidents notified per million population

Year	Number	Five Year Average
2000-01	7	6
2001-02	5	6
2002-03	8	6
2003-04	5	5
2004-05	7	5
2005-06	4	5
2006-07	6	5
2007-08	5	5
2008-09	4	4
2009-10	7	5

NB: Gas related accidents recorded are for the date of incident and are for current notifications entered and received from 01/07/09 until 30/06/10.

The serious gas related accidents included one fatality in which gas was found to be the cause:

- A flashover occurred during the process of changing a gas bottle to a barbecue. The flashover caused serious burns to the person that required

hospitalisation. A serious infection resulted and the person subsequently died.

An update on the National Licensing System

In April 2009, the Council of Australian Governments (COAG) agreed to develop a national licensing system for specified occupations. COAGs aim was to remove licensing inconsistencies across state and territory borders and allow for a more mobile workforce. This new system is expected to commence on 1 July 2012 with the initial occupations of electrical, gasfitting, plumbing, property licensing, refrigeration and air-conditioning.

The model legislation was enacted in the Victorian Parliament in September 2010. In Western Australia, the draft Occupational Licensing National Law (WA) Bill 2010 based on the model legislation has been referred to the WA Parliament. Passage of the Bill is expected to occur in the first half of 2011. This Bill sets up the general legislative framework for the National Licensing System and establishes the National Occupational Licensing Authority (NOLA). Another WA Bill will have to be enacted, at a later date, to make all of the consequential amendments to existing WA occupational licensing legislation (e.g. the Electricity Act) to remove the state licensing provisions. When the second WA Bill is enacted, NOLA will take over responsibility for finalising the policy elements of the National Licensing System and will put in place suitable systems to enable the first wave of national licensing to commence on 1 July 2012.

EnergySafety is represented on the Electrical Occupations Interim Advisory Committee (EOIAC) which

has been tasked to assist the COAG National Licensing Taskforce with the development of licence policy for electrical occupations. At its fifth meeting on 4 November 2010, the EOIAC discussed a range of licence characteristics and how these might need to be included in the design of the national regulations in relation to the electrical occupations.

EnergySafety is also represented on the Plumbing and Gasfitting Occupation Regulator Working Group which advises the Plumbing and Gasfitting Interim Advisory Committee. WA has concerns that some other jurisdictions require that all gas fitters should come through a plumbing and licensing pathway. This is not the policy in WA and would restrict significantly the number of gas fitters licensed. Many gas fitters do not want to become plumbers.

Significant progress has been made towards a uniform national licensing regime but there is a lot of work ahead to develop uniform regulations for electrical and gas licensing. Further updates will be provided in future Bulletins.

Energy Bulletin Reader Satisfaction Survey

The October issue of the Energy Bulletin included an invitation to readers to complete a reader satisfaction survey.

EnergySafety has received over 700 responses. The survey has now closed and analysis of your responses will commence shortly. A short form report will be included in the next issue of the bulletin and a detailed report will be available on EnergySafety's website.

Many thanks to those readers who generously allocated their time to respond to the survey. We are looking forward to reviewing your comments.

electrical focus

Electrical Equipment Safety System (EESS)

Electrical equipment safety in Australia is the responsibility of State and Territory governments administered through local legislation, regulatory requirements and compliance interventions. In early 2007, the Electrical Regulatory Authorities Council (ERAC) recognised that a changing marketplace, including a greater reliance on imported electrical goods, was increasing the risk of unsafe electrical equipment being supplied in Australia and New Zealand. This led regulators to believe that a formal and comprehensive review of the Electrical Equipment Safety System (EESS) was essential.

Following a thorough consultation and review process, ERAC members decided that the proposed new system will have the following features:

- Nationally consistent, performance-based legislation in each jurisdiction, setting out the scope of electrical equipment included and excluded from the system, and consistent obligations and penalties.
- Centrally administered and managed. The ERAC Secretariat is best placed for this role.
- Regulatory and enforcement responsibilities to remain with the states and territories.
- A national database.
- All electrical equipment including certain higher risk equipment must be registered prior to being offered for sale.

This would allow equipment to be traced easily to its supplier and act as a gateway to legal supply of electrical equipment in Australia and New Zealand.

- Equipment classified based on risk. Three levels (high, medium and low risk) with proportionate standards of conformance for each level is proposed.
- The safety of the equipment rests with the responsible supplier who is deemed to be the first point of sale for goods in Australia or New Zealand. The responsible supplier must be an Australian or New Zealand entity to ensure enforcement action can be undertaken through the local judicial system.

Scheme Rules, providing details on the pre-market certification and registration process, have been developed by ERAC and considered by industry, regulatory authorities, certification bodies, NATA and JAS-ANZ in July 2009 and February 2010. Under the new scheme, certifying bodies will be accredited to approve and register electrical equipment by all regulatory authorities using the same criteria. Regulatory authorities will also be able to approve and register equipment. Certifying bodies are accredited in New South Wales and Victoria only, but their approvals are valid across Australia and New Zealand under mutual recognition agreements.

A National Registration Database containing information such as certificates of conformity, registration of suppliers and registration of electrical equipment

(including electrical equipment 'product families') will be established. Appropriate levels of access to the database will be provided to regulatory authorities, certifiers, suppliers, wholesalers, retailers and consumers. Consumers will also be able to check equipment registrations on the website before or after purchase of electrical equipment.

Development of new legislation in each jurisdiction to support the scheme, including obligations of different parties and penalties for breaching requirements of the system, has started. Public and industry awareness activities will be organised prior to the official launch of the scheme scheduled for July 2011.

Replacement of semi-enclosed re-wireable fuses

To explain some of the issues raised by users of the Wiring Rules (2007), the EL-001 committee published Frequently Asked Questions (FAQs) and answers in March 2010. Of particular interest, FAQ 014/2009 provided some clarifications on when semi-enclosed re-wireable fuses should be replaced.

In accordance with Clause 1.9.3 of AS/NZS 3000:2007, every alteration, or addition to an existing electrical installation shall be deemed to be a new electrical installation, and all the provisions of the standard shall apply to every such alteration or addition.

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Whenever an addition or alteration is made to a circuit protected by a semi-enclosed re-wireable fuse, it or its fuse element should be replaced with another type of protective device (such as a circuit breaker):

- whenever the prospective short-circuit current is greater than 1 kA;
- if the marked current rating of the fuse or fuse element is greater than 69% of the continuous current-carrying capacity of the cable (Iz); or
- if there is a visible significant deposition of carbon and/or copper on the fuse base or carrier.

Correction to electrical switchboards on construction sites

In the last edition of the Energy Bulletin, Issue No. 52, there was an error in the article entitled "Electrical switchboards on construction sites".

The article incorrectly stated that the requirements of AS/NZS 3012:2003 apply to all construction and demolition sites in conjunction with the requirements of AS/NZS 3000:2007, Wiring Rules. What it should have stated was that the requirements of AS/NZS 3012:2010 apply to all construction and demolition sites.

Q & A with Emma-Jane Potter – recipient of the 2010 Apprentice Safety Achievement Award

Emma-Jane Potter was recently honoured with the 2010 Apprentice Safety Achievement Award at NECA's Apprentice Awards night. The NECA Apprentice Awards are a unique opportunity

to recognise those apprentices that have shown excellence in all areas of their work in this rapidly changing and challenging industry. Congratulations on your win Emma.



Emma-Jane Potter

How did your nomination come about?

I was encouraged by Electrical Group Training to apply for the NECA Apprentice of the Year Award and my host employer at the time, Hender Lee Electrical was also fully supportive, providing references and time to attend interviews. I was selected for an interview from my written application and following my interview was asked to return to complete a safety exam.

What did you receive on awards night?

I received the Apprentice Safety Award sponsored by EnergySafety and also 2nd in the NECA Apprentice of the Year Award.

What does winning an award like this mean to you?

I believe my achievements in training and development as an apprentice has been recognised through nomination and success in a number of apprentice awards, including the NECA WA awards. I was also awarded 2nd and 3rd Year EGT Apprentice of the Year, and was one of four finalists in the

2010 WA Training Awards, which is open to apprentices from all industries in WA.

In addition I was awarded the opportunity to participate in the Today's Skills Tomorrow's Leaders Program in Canberra through Group Training Australia. At the recent EGT 2010 Apprentice of the Year Award presentation I received the 2010 Excellence in Training award, EGT's most prestigious award, which capped off what has been an incredible journey of learning and different experiences during the four years of my apprenticeship.

I believe all these awards are important in recognising and rewarding the achievements and efforts of apprentices, promoting excellence and high standards of achievement and also raising the profile of the electrical industry.

What are some of the major safety concerns for electrical apprentices?

Obviously a major safety concern is electricity itself, an integral part of the industry, as an electric shock can have fatal consequences, sometimes in situations that may appear to be of low risk. Falls are also of concern for electrical apprentices given the amount of work done at heights.

Adequate supervision of apprentices is also important to ensure their safety and to provide them with the required skills to work in the electrical industry.

What is your number one safety tip for apprentices?

Test before you touch and test again. Don't simply trust that a circuit has been correctly isolated, check for yourself, as it is your life on the line. Ask for assistance if you need to.

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There are many training providers for apprentices wishing to undertake a career in the electrical industry. What made you decide to undertake your apprenticeship with EGT?

EGT offered varied experience through the opportunity to work for different host employers, allowing me to develop a broad range of skills and experience, as well as providing mentoring, support and encouragement, plus access to additional training. I believe EGT has the capacity and resources to provide greater opportunities for apprentices, as well as an excellent support base and a wide range of knowledge and experience in human resources and industry contacts developed in managing such a large number of apprentices. EGT also has excellent occupational safety and health policies and systems in place and this is a critical aspect when working in the electrical industry.

What are some of the factors that have influenced your decision to become an electrician?

I chose to undertake an apprenticeship in the electrical industry as it provided the opportunity to develop valuable and enduring skills in a trade that offers an ever expanding variety of specialty and skill areas. It is an exciting career path to be part of with the current developments in sustainability, 'ecosmart' systems and technology. It also offers excellent prospects for employment with the growth of industry and mining, or the potential for development of your own business as a contractor.

Are there any challenges you have experienced being a female in a mostly male dominated industry?

One of the biggest challenges was obtaining an apprenticeship as a mature age female who had worked in an office environment beforehand.

Generally, I had no response to my applications, although at one interview I was told that it was unlikely they would be able to find a host employer to take on a mature age female apprentice with no experience. Fortunately for me, EGT, in partnership with the Army Reserve Traineeship and Apprenticeship Program (ARTAP) were prepared to take the risk. I noticed an advertisement in the paper for ARTAP, applied and started an apprenticeship shortly afterwards.

I would like to see more females in the industry as sometimes you can feel like a bit of a novelty as the only female on site, but I can't say that I have had any real issues during my apprenticeship. I generally get treated the same as everyone else which is all I ask for. The host employers I have had during my apprenticeship, Electek, HenderLee Electrical and Downer EDI Engineering have all been supportive and ensured that I have been treated fairly and equally.

What are your career plans after you have completed your apprenticeship?

I plan to develop a career specialising in the areas of instrumentation, sustainability and 'ecosmart' systems. I have sought out experience in these areas and completed training to support this, such as Certificate IV in Instrumentation, installation of solar systems, and passive solar design. I also plan to undertake further study in areas such as renewable energy and the EcoSmart Electrician program.

Using Sub-Contractors for electrical work

The electrical requirements for sub-contractors have recently been causing confusion within the electrical industry. The Electricity (Licensing) Regulations 1991 state

the requirements for the provision of electrical contracting services in Western Australia.

Regulation 33(1) states that you must hold an electrical contractor's licence to carry on business as an electrical contractor (i.e. to undertake electrical contracting work, you must hold an electrical contractor's licence). The exception under Regulation 33(4) is that employees (electricians) of a licensed electrical contractor may undertake electrical installing work for that employer without having the need to hold their own contractor's licence. If you are employed on a contract basis, you are covered by this Regulation.

Regulation 34 states you must not enter into a contract with a person to have electrical installing work carried out unless that person holds an electrical contractor's licence. This means any electrical work contracted to an unlicensed sub-contractor (not an employee) by a head contractor is in breach of these Regulations. Electrical contractors engaged as subcontractors are covered by this Regulation.

Under Regulation 65, a breach of these Regulations could attract a fine of up to \$50,000 for an individual or \$250,000 for a corporation.

If you are a sub-contractor, you must also be a licensed electrical contractor and hold a current EC licence. It is an offence to sub-contract installing work to an unlicensed sub-contractor.

Regulations 51 and 52 require an electrical contractor carrying out any notifiable work, or causing any notifiable work to be carried out, to submit the appropriate notice to the relevant network operator.

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If you are an electrical contractor (head contractor) who contracts another electrical contractor (sub-contractor) to carry out the electrical work, then the sub-contractor should submit the Preliminary Notice and Notice of Completion to the network operator, as they carried out the work and are therefore responsible for checking and testing it.

For auditing purposes, the head contractor also needs to keep a record of the sub-contract agreement, between themselves and the sub-contractor. The contract should clearly state the sub-contractor is responsible for lodging the appropriate notices to the network operator and must supply a copy of all notices to the head contractor for record keeping purposes. Should the head contractor be audited, they can then demonstrate the work was performed by a sub-contractor, who under the contract, was required to provide the relevant notices and Electrical Safety Certificate.

In the event that no notices are submitted within the required timeframes, both the head contractor and the sub-contractor will be in breach of the Regulations and both may be prosecuted. Therefore, the head contractor should always ensure notices have been submitted by the sub-contractor.

Finally, Regulation 52B requires the electrical contractor who carries out any electrical work, or causes any electrical installing work to be carried out, to deliver an Electrical Safety Certificate to the person for whom the work was carried out. The sub-contractor (the contractor who carried out the work) must provide the Electrical Safety Certificate to the head contractor (the contractor who caused the work to be carried out). The head contractor must then provide the Electrical Safety Certificate to the

owner of the electrical installation (the person for whom the electrical work was done) and keep a copy of the certificate. This is also another means for detailing the work done by each party.

2010 Royal Show inspections

EnergySafety Electrical Inspectors conducted inspections of electrical items for sale at the 2010 IGA Perth Royal Show. They also distributed educational information to all relevant stall holders relating to the appliance approvals process.

The audit found one stall which stocked unapproved hand held massagers for sale. Selling unapproved appliances is a breach of the *Electricity Act 1945*, Section 33B(2). The massagers, which are prescribed articles, need to be formally approved before they are sold or offered for sale.

Inspectors asked the store owner to provide approval documents for the massagers and informed him that he must cease trading if he could not. The store owner informed the Inspectors that he had submitted the product to a leading testing authority in Queensland for product approval.

Further checks revealed the unit did not comply with the Australian Standards and had not been approved.

When the Inspectors returned to the Show for a follow up inspection some days later, they found the store holder to be demonstrating and selling the unapproved massagers. The store holder received an Infringement Notice with a penalty of \$4,000 for all of the electrical appliances being sold.

Further information on the appliance approvals process can be found on the EnergySafety website www.energysafety.wa.gov.au

Inspecting electrical appliances

The inspection and testing of electrical appliances requires you to refer to AS/NZS 3760:2010, In-service safety inspection and testing of electrical equipment for safety guidelines. Electrical appliances need to be regularly checked for obvious signs of damage and wear.

Single insulation figure eight cords are considered obsolete and inferior. If you come across them, they need to be replaced immediately. It is strongly recommended that you inform your customers of this in writing.

While checking an appliance, it will also be worthwhile to check for other safety issues; including whether the pins on the plug are insulated.

It would also be an ideal time to check with your customers whether RCDs have been fitted on the power and lighting circuits, as well as informing them that they need to regularly test their RCDs by pushing the test button.

Western Power's new Inspectors' Team Leader

Western Power is pleased to announce the appointment of Julian Payn as the new Electrical Installation Inspectors Team Leader. While Julian will be based at Western Power's Forrestfield depot, he will be continuously mobile to ensure he and his team engages with the key stakeholders at all times.

Julian has worked within Western Power for seven years and has performed various roles, including line work, cable jointing, electrical switching operations,

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project management and safety investigations.

Julian brings over twenty years experience in the electrical industry, covering a wide range of activities which include military and civilian electrical installations, control and monitoring systems, testing and commissioning as well as investigation and reporting activities.

As Team Leader, Julian's role involves managing the Electrical Installation Inspectors, promoting and monitoring compliance within the electrical industry and communicating constructively with key stakeholders to ensure that required outcomes are understood and effectively delivered.

Julian is excited about the new journey in store for 2011, as the Western Power Inspectorate integrates into the Operational Technical Excellence Branch (OTX) within Western Power.



Julian Payn, Electrical Installation Inspectors Team Leader

Prosecutions for breaches of electricity legislation 1 August to 31 October 2010

Name (and suburb of residence at time of offence)	Licence No.	Legislation and Breach	Offence	Date of Offence	Fine (\$)	Court Costs (\$)
David Winton Turner (Wanneroo)	NLH	E(L)R 1991 Regulation 19(1)	Carried on electrical work without holding an electrical workers licence	01/08/08	3,000.00	649.70
Ryszard Olszewski (Sorrento)	EW126650	E(L)R 1991 Regulation 33(1)	Carried on business as an electrical contractor without an electrical contractors licence	Between 08/06/08 and 18/06/08	500.00	649.00
Jonathan Beal (Riverton)	EW133724	E(L)R 1991 Regulation 50A	Permitted unsafe wiring to be connected to the electricity supply	Between 23/06/08 and 27/06/08	2,000.00 *	649.70 *
		E(L)R 1991 Regulation 62	Did not report an unsafe installation which he had caused			
Antonio Genovese (Boulder)	EW142486	E(L)R Regulation 50(1)	Failed to provide adequate supervision for an employed electrical apprentice	18/03/08	1,500.00	2,500.0 *
Paul Anthony Tilbury T/As Gilders Electrical (Bayswater)	EC007402	Regulation 52(3)	Submitted a Notice of Completion to the Network Operator when the electrical installing work was not complete	Between 16/03/08 and 26/05/08	2,000.00	649.70

gas focus

Gas Industry Trade Expo 2011

EnergySafety in conjunction with WA Gas Networks will launch the first downstream Gas Industry Trade Expo in Western Australia. The Trade Expo will be held at the Ascot Racecourse 16 March 2011. Much has been said about the huge Natural Gas Reserves and projects off our Northern Coastline. The Trade Expo will give gas fitters, plumbers and others in the industry a first hand look at the latest advances relating to the downstream side of the gas industry.

The Trade Expo will feature displays on equipment used for the installation of the distribution systems, gas metering, domestic, commercial and industrial gas appliances, equipment and piping systems. In addition to this, there will be equipment suppliers servicing the industry.

At the Gas Industry Trade Expo, EnergySafety will be presenting the release of the much anticipated Australian Standards AS/NZS 5601, Gas Installations. Changes to gas legislation and the latest news on National Licensing issues will also be discussed. It is highly recommended that gas fitters attend this presentation.

Two presentations will be conducted, the first commencing at 1:00pm and the second at 6:00pm. The Trade Expo and presentations are free to attend.

If you are unable to make the Gas Industry Trade Expo and are located in a regional area, further presentations on AS/NZS 5601 and changes to legislation will be held on the following dates in the below listed locations:

<p>2 March 2011 – Narrogin Narrogin Tennis Club Kipling Street NARROGIN</p>	<p>30 March 2011 – Mandurah Mandurah Conference Centre Rear of Atrium Hotel Peel Street MANDURAH</p>
<p>5 April 2011 – Albany Albany Golf Club Golf Links Road ALBANY</p>	<p>6 April 2011 – Bunbury Carey Park Football Club Xavier Street BUNBURY</p>

<p>3 May 2011 – Merredin Merredin Club Coronation Street MERREDIN</p>	<p>4 May 2011 – Kalgoorlie Railway Hotel 51 Forrest Street KALGOORLIE</p>
<p>18 May 2011 – Geraldton Towns Football Club Eighth Street GERALDTON</p>	<p>25 May 2011 – Esperance Bay of Isles Motel 32 The Esplanade ESPERANCE</p>
<p>1 June 2011 Dalwallinu Bowling Club Off Myers Street DALWALLINU</p>	

Subject to securing suitable premises and dates, the following locations are intended for June 2011:

- Karratha TBA
- Pt Hedland TBA
- Broome TBA

The Gas Industry Trade Expo will offer businesses the opportunity to showcase their products and services to the industry. To secure your place at the Expo or reserve a seat at one of the regional presentations, please contact Nadia Balla on nadia.balla@commerce.wa.gov.au or telephone 9422 5231.

Appliance Rectification Programme – Stage 2

The Appliance Rectification Programme is entering the second stage of the project which involves a licensed gas fitter undertaking the replacement of qualifying pre-1980 gas appliances and any other required action for appliances to remain in service.

EnergySafety has been coordinating the Appliance Rectification Programme for the past ten months on behalf of the gas producers, to identify and inspect all domestic pre-1980 appliances to determine if an appliance will operate safely on the changed gas.

Licensed gas fitters have been carrying out free safety checks on registered appliances and gas installations, including a gas leak test. The information gathered by the gas fitter has been entered into a database and will determine whether an appliance qualifies for a replacement.

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If the appliance is considered unsuitable for use on the changed gas it may be replaced with an equivalent **brand new natural gas appliance(s) at no cost.**

For pre-1980 gas appliances to remain in service and operate on the changed gas, a decision will be made on how this will be managed as it may not be possible to service all of these appliances particularly if replacement parts are no longer available.

Installation of appliances that qualify for replacement will commence in March 2011.

For an appliance that has **not** been inspected as part of the Appliance Rectification Programme to remain in service, the owner will need to arrange an inspection by a designated gas inspector. If the inspection finds the appliance:

- is of a particular make and type (a list will be available in coming months on the EnergySafety website) it can remain in service providing it is operating in a safe manner;
- is operating safely but not of a type or make listed on the website a badge will be attached allowing the appliance to remain in service; or
- is unsafe it will be disconnected and either removed or rendered inoperable.

After the programme has finished the cost of inspection, servicing or replacement of the appliances will be the responsibility of the consumer.

Legislation will be changed to prohibit the use, sale and installation of certain pre-1980 gas appliances that have not been inspected and certified as safe.

As a gas fitter, if you come across an appliance that dates pre-1980 after the Appliance Rectification Programme has finished,

when completing the Notice of Completion, please include details of the pre-1980 appliance in section 8.

Two gas meter explosions in two weeks

They say it is usual for events to happen in threes; however this was the case late last year. Just prior to the release of Energy Bulletin 52, EnergySafety was notified of a gas fitter who had been working on a gas installation cutting and welding in a copper tee causing a gas meter to explode.

The gas meter in this instance had not been adequately isolated or the fitting line purged. A gas air mixture remained in the pipe and was ignited when the oxy torch was lit.

In the first week of November, there was another report of a gas meter exploding under similar circumstances. Just as the paper trail was completed on this incident, another gas meter explosion was reported to EnergySafety in the second week of November.

At this point, readers are referred to Australian Standard AS/NZS 5601, Clause 2.4 Purging.

“Before commencing work on consumer piping that contains or has contained gas, the piping shall be purged with air or inert gas. The accumulation of any gas in the vicinity of the work shall be prevented.”

Gas fitters should understand the meaning of Regulation 18.1 of the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999 which states,

“A gas fitter who does gasfitting work on a gas installation must ensure that the work is done in a safe manner”

Notwithstanding the embarrassment of having to explain to the consumer that their gas meter has exploded, you may incur an Infringement Notice or possible Prosecution and the cost of the replacement gas meter.

Fortunately, in the cases mentioned above no one was injured but this may not be the case in any future gas meter explosions.

It is important when welding on gas installations that the meter outlet is disconnected, sealed and capped off so a flashback to the gas meter cannot occur.



Exploded gas meter.

Recognised training for a gas fitting licence.

EnergySafety has moved to recognise national competency training packages as qualifying to receive a gasfitting permit or authorisation in Western Australia. The gasfitting training provided by the following Registered Training Organisations are recognised by the Director for the purposes of issuing the class of gasfitting licence indicated.



MPA Skills new training resources

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Institution	Location / campus	Class of gasfitting licence
Challenger Institute of Technology	Fremantle Campus Phone: 1300 300 822 Fax: (08) 9239 8555 Address: 15 Grosvenor Street Beaconsfield 6162	G – Installation and servicing
Challenger Institute of Technology	Kwinana Centre Phone: (08) 9599 8780 Fax: (08) 9239 8080 Address: Hutchins Cove Kwinana Town Centre 6167	E – Installation and servicing LP Gas
MPA Skills	Maylands Campus Phone: (08) 9471 6600 106 1800 623 733 (free call) Fax: (08) 9471 6601 Address: 108 Caledonian Avenue Maylands	G – Installation and servicing
Optec	Balcatta Phone: (08) 9240 8252 Address: 92 Erindale Road Balcatta WA 6021	I – Installation, commissioning and service Type B appliances I – Authorisation
Polytechnic West	Balga Campus Phone: (08) 9267 7500 Fax: (08) 9207 4222 Address: Loxwood Road Balga 6061	G – Installation
Polytechnic West	Midland Campus Phone: (08) 9267 7500 Fax: (08) 9374 6100 Address: Lloyd Street Midland 6056	G – Installation I – Authorisation (WA course)
Polytechnic West	Carlisle Campus Phone: (08) 9267 7500 Fax: (08) 9267 7310 Address: Cnr Oats And Bank Streets Carlisle 6101	E – Installation LP Gas, LNG, CNG E – Servicing LP Gas, LNG
South West Regional College of TAFE	Bunbury Campus Phone: (08) 9780 7000 Address: Robertson Drive Bunbury 6230	G – Installation

Notes:

- Class G** – gasfitting work associated with Type A gas appliances and piping systems operating up to 200 kPa.
- Class I** – gasfitting work associated with Type B gas appliances (industrial).
- Class E** – gasfitting work associated with mobile engines (automotive, car, forklifts portable engines with their own gas supply).
- Authorisation** – for specific work, the training is normally for the maintenance of industrial appliances and associated natural and LP Gas piping systems on particular sites or associated with a particular company operation.
- LP Gas** – Liquefied petroleum gas.
- LNG** – Liquefied natural gas.
- CNG** – Compressed natural gas.

All the training provided by the above training organisations meets EnergySafety guidelines and National Competency Units unless otherwise stated.

Duly completed notices of completion

Gas suppliers have made EnergySafety aware of a problem they are experiencing with submitted Notices of Completion (NOCs). Many submitted NOCs are incomplete, in error, or do not contain enough information to allow the gas supplier to comply with their statutory requirements. Over the twelve months from July 2009 to June 2010 gas suppliers have reported a total of 2,519 NOCs were returned to gas fitters for correction and re-submission. The LP Gas suppliers also report that an estimated 1,000 NOCs are sent to the wrong gas supplier and require redirection to the correct gas supplier or EnergySafety for processing. These problems can be avoided by the gas fitter taking the time to correctly complete their NOCs before they are submitted. This then avoids delays in processing the NOCs and the resultant inconvenience to the customer, the gas supplier and the gas fitter. Gas fitters and/or gas suppliers may be infringed or prosecuted for non-compliance with statutory requirements as a result of submission of incomplete NOCs.

The following is a guide to correctly completing a NOC;

Section 1: Location of installation.

Enough information to uniquely identify and locate the gas installation is mandatory. Additional information, e.g. occupier telephone number, meter number etc, where available should be provided. Where a gas installation is difficult to locate, directions allowing easy location of the gas installation must be included.

If the owner of a vehicle, caravan, campervan or marine craft is unknown the dealer's name and telephone number must be provided.

Section 2: Mobile installations.

The vehicle identification number, the vehicle type and gas type must be indicated. The contact details entered in Section 1 must allow the vehicle to be located and inspected.

Section 3: Fixed installation details.

Every effort must be made to identify the correct gas supplier.

The gas supplier is as follows:

- for supply from a reticulated system, the operator of the system; or
- for supply from LP Gas cylinders or tanks, the owner of the cylinders or tank.

Installations to be supplied from a reticulated system must indicate if the meter box is fitted or not. Gas suppliers generally can not install a service unless the meter box has been fitted.

Section 4: Installation details.

At least one option must be selected on each line.

With the second line (type of installation), two options must be selected, the type of installation (domestic, commercial, or industrial) and if the installation is new or existing.

Section 5: Type of work.

At least two options need to be selected from this section, the connection status (new or additional) and the type of work.

- New connection means before or at commencement of gas supply;
- Additional connection means gas supply has already been commenced and the installation is being modified or added too.

More than one type of work can be selected, for example the installation of a new water heater in an existing home would have the following options selected:

- additional connection;
- pipe work;
- appliance installation; and

- commissioning (both pipe work and the appliance).

Section 6: Type A (domestic/commercial) appliance(s)

This section lists the number, rated maximum gas input, and makes of all Type A gas appliances by the appliance type installed. The gas input rate is the total for all appliances of the type.

Section 7: Type B (industrial) appliance(s)

Type B appliance details are only to be entered by class I gas fitters.

Section 8: Comments and additional details.

This is where the gas fitter can provide additional information. In particular, a gas fitter must report any non-compliant gasfitting work observed on the gas installation. The gas supplier will act on this report and investigate the non-compliance. An unsafe installation can be reported in this section; however any unsafe installation must also be reported immediately to the gas supplier or EnergySafety.

Any variation/exemption that is applicable to an installation must also be recorded in this section, for example, GVE 07/03 for a continuous flow water heater with a sideways flue diverter installed in a covered area.

Section 9: Administration details.

Entry of all gas fitter details in a clearly legible manner is mandatory.

No NOC will be accepted where the declaration is not signed and dated.

The NOC for mobile installations, to be considered duly completed, requires sections 1, 2, 8 and 9 to be completed; and additionally for caravans, campervans and marine craft, section 6.

The NOC for a fixed installation to be considered duly completed requires sections 1, 3, 4, 5, 6, 7 (if applicable), 8, and 9 to be completed.

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The completed NOC must be submitted within 48 hours of the completion of the work to the following:

- for mobiles (vehicles), caravans, campervans and marine craft, to EnergySafety; or
- for stationary installations to the gas supplier. If the gas supplier can not be identified the NOC must be submitted to EnergySafety.

A list of contact details for EnergySafety and gas suppliers are provided in the NOC book.

A duly completed NOC makes everyone's life easier; an incorrectly completed NOC causes problems for the gas suppliers, customers and particularly gas fitters. If you are in doubt as to what is required in completing a NOC contact EnergySafety or the gas supplier.

New pathway to obtaining a Class I Gasfitting Permit now available

EnergySafety is pleased to announce that Optec Pty Ltd is now recognised by the Director of Energy Safety, as meeting the licensing training requirements for Class I gas fitter permits and authorisations for the installation, commissioning and servicing of Type B gas appliances.

As from the 1 March 2011, EnergySafety will only recognise industrial gasfitting training for Class I gas fitters that meet EnergySafety guidelines. Previously recognised industrial gasfitting training which started before 1 March 2011 will continue to be recognised.

EnergySafety has licensed industrial gasfitting since the introduction of the licensing of gas workers during 1983. Training in industrial gas maintenance for the purpose of obtaining an industrial gasfitting

license was developed and implemented in the mid 1980's.

To be issued an authorisation to supervise 'like for like' maintenance of a company's gas installation, including Type B appliances, the applicant needs to be nominated by the company, and have satisfactorily completed the industrial maintenance course.

To obtain a Class I gasfitting permit to work as an independent gas fitter, the applicant needed to satisfactorily complete the industrial maintenance course, and to have worked (holding a restricted permit) under supervision of a Class I permitted gas fitter to obtain industry experience. After obtaining industrial gasfitting experience, the gas fitter could apply to have the restriction to work under supervision removed and work as an independent industrial Class I gas fitter.

With the introduction of National Training Packages and new gasfitting regulations, EnergySafety after industry consultation, produced guidelines for training providers outlining the training requirements to obtain particular classes of gasfitting licence.

Industrial gasfitting training requires specialised instruction and facilities. The Plumbing Services national training package (CPC08) unit of competency (CPCPGS4003A) install, commission and service Type B gas appliances is relevant to type B gas appliance gasfitting. Optec Pty Ltd, a provider delivering industrial gasfitting training in Western Australia is now recognised by the Director as meeting the requirements of EnergySafety guidelines and the national training package. The second provider of industrial gasfitting training in Western Australia is working with EnergySafety to upgrade their training to meet the requirements.

The compliance of the Optec CPCPGS4003A unit of competency course has allowed the Director to recognise a new pathway for issuing a Class I gasfitting permit. A student who has successfully completed the Optec training course can apply for a Class I permit to work (without supervision) on Type B gas appliances with a maximum rated gas input of 5 Gigajoules per hour.

The timing for moving to the national training packages is significant. In April 2009 the Council of Australian Governments (COAG) signed an intergovernmental agreement for a National Licensing System (NLS), and will cover licensing of identified business and occupations, including gas fitters. Jurisdiction regulators and licensing authorities are now working on legislation to implement the first tranche of the system by July 2012. Qualifications to obtain the various license types under the system will be based on relevant national training packages.

In 2009, EnergySafety formed an industry working group to review the requirements for gasfitting authorisations to maintain consumer's industrial gas installations. Two of the outcomes from that review were:

1. two categories of authorisations are considered; and
2. qualifications to obtain an authorisation are based on national competency units.

EnergySafety is now working towards implementing a two tier authorisation system based on national competency compliant training.

If you have any questions in regard to this matter please contact either David Hartley or David Robertson on 9422 5200.

Amendments to the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999

The Executive Council approved amendments to the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999 on 16 November 2010. The amendments were published in the Government Gazette No. 222 dated 26 November 2010 and are now law.

The amendments provide for the following:

1. Extending the scope of supervision by a Class I (Industrial) Permit holder.

The scope of supervision by a Class I Permit holder has been extended so that in addition to being able to supervise a person in training, they can supervise others with specialised skills in carrying out aspects of what is considered to be gasfitting work without obtaining an authorisation. Gas fitters must apply to the Director for an endorsement on their Class I Permit to be able to supervise.

Regulations 3, 5, 15 and 19 are amended to this effect.

2. Inserting a transitional provision in respect of all codes and standards.

A transitional provision in respect of all codes and standards referred to in the regulations has been inserted. This means that when an amendment is made to any applicable code or standard, then gasfitting work can comply with the unamended or the amended version of the code or standard for a period of six months after the amendment is recognised.

Regulation 32 is amended to this effect.

3. Including regular servicing and maintenance of Type B (industrial) appliances

Regular servicing and maintenance of Type B (industrial) appliances has been included as part of consumer's obligations. Safety controls and interlocks of these appliances are rarely activated under normal operation, but may easily become inoperative with time through neglect or lack of maintenance. Regular checking of the effectiveness of the safety controls and interlocks is essential for continued safe operation of the appliances. Regulation 36 is amended to this effect.

4. Defining the various categories of Type A (domestic/commercial) gas appliances.

The various categories of Type A (domestic/commercial) gas appliances and their maximum gas consumption has been defined. These were omitted from previous amendments to the regulations. The maximum hourly gas consumption has been increased from 500 to 1,000 MJ in recognition of changing appliance design and capacity.

Regulation 42B is amended to this effect.

5. Allowing a fee to be charged for replacement of a gasfitting permit or authorisation.

A fee of \$25 can be charged by EnergySafety for replacement of a gasfitting permit or authorisation. The fee is on a cost recovery basis.

Regulation 13A has been inserted to this effect.

6. Updating the list of industry codes and standards.

The list of industry codes and standards for which compliance is mandatory, have been

updated. Schedule 6, clauses 401(2), sub-clauses 401(2)(b) and (d) and Schedule 7 have been amended to this effect.

The standards in clause 401(2)(b) and 401(2)(d) (AS 1697/AS 3723) have been deleted and AS 4645.2: Gas distribution networks – Steel pipe systems, and AS 4645.3: Gas distribution networks – Plastic pipe systems, inserted respectively.

7. Prohibiting the installation of flue-less gas space heaters in schools and child care centres.

The installation of flue-less gas space heaters in schools and child care centres where children are exposed to the combustion products from these appliances for extended periods is prohibited. Studies have claimed that people with asthma, the elderly and children are particularly susceptible to the adverse effects of the combustion products released by this type of heater on their respiratory systems.

The prohibition is applied to schools and child care centres specifically as children attending these have no prerogative to limit their exposure. To ensure that they are not subject to potential health risks associated with the emissions from flue-less gas space heaters, this clause prohibits the installation of such gas appliances in schools and child care centres.

The prohibition does not apply to areas of schools and childcare centres where students are not exposed to the products of combustion, in well ventilated areas, or areas where students may be exposed for limited periods. Examples of such areas are gymnasiums, assembly halls, staffrooms or an office of a Principle or Counsellor. Schedule 6, clause 604A(2) has been inserted to this effect.

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8. Repealing the requirement for a LP Gas compartment or recess, located on or in a caravan or boat.

The requirement for a compartment or recess, located on or in a caravan which houses an LP Gas cylinder to be lined with a fire resistant material is repealed. This requirement is considered to be no longer relevant as compliance with Australian Standard, AS/NZS 5601: Gas installations, is considered more relevant. Schedule 6, clause 702 and 704, sub-clause (2)(a) is deleted to this effect.

9. Updating Schedule 7.

Schedule 7 which has a number of industry codes and standards that are mandatory and are intended to ensure the safety of consumers' gas installations is updated, as codes and standards have changed from codes to standards or have become joint Australian/New Zealand Standards.

The amendments made will be further explained at the up coming downstream Gas Industry Trade Expo to be held at the Ascot Racecourse or at the regional presentations. Any queries in the interim on these amendments to the regulations should be directed to EnergySafety's Gas Utilisation Branch. The consolidated regulations can be obtained from the State Law Publisher or viewed on their website at www.slp.wa.gov.au.

*Note: The joint Australian/New Zealand Standard, AS/NZS 5601: Gas installations, was published on 23 December 2010. This particular amendment was published in the *Government Gazette* on 21 January 2011. The Director of EnergySafety will permit a six month transitional provision from the date of gazettal, rather than from the date of publication of this Standard.

Guitar wok and roller barbecue

Valued at \$30,000 the guitar shaped barbecue manufactured and certified in Western Australia (WA) was released at the DesignEx 2010 show in Sydney, where more than 300 interior design and architecture exhibitors showcased their latest developments.

Responses to the barbecue guitar from those at the trade only event were exceptional; it left designers, developers and architects impressed with the quality of WA workmanship displayed.

The guitar shaped barbecue is of fully welded construction of 3mm thick stainless steel; with a 10mm thick stainless steel hot plate; stainless steel rail burners, stainless steel char-grill, sausage roller (acting as a rotisserie); and has a commercial grade cast iron wok burner. Gas burner consumption is 71MJ/h and is suitable for use with either LP Gas or natural gas with flame failure protection installed.

The guitar shaped wok and roller barbecue was designed and built by Ferguson Corporation Pty Ltd to create a point of difference in the market place. The barbecue was certified by the independent Type A gas inspector, Peter Godden of PSG Gas Consultants.



EnergySafety at your workplace

It has become common place for companies to have regular toolbox/safety meetings. EnergySafety is offering to provide attendance at these meetings by gas inspector(s).

A meeting of this type gives EnergySafety the opportunity to meet gas fitters in an informal environment and inform them of EnergySafety's roll as the regulator. These gatherings also give gas fitters in the field, the opportunity to discuss any regulatory issues or queries they may have, directly with the regulator. The feedback provided by the gas fitters can be used to determine future regulatory requirements or changes to current legislation.

EnergySafety's Gas Inspectors have recently attended toolbox meetings at a number of larger gasfitting/plumbing companies and received positive feedback. The meetings were attended by the company's gas fitters, apprentices and company representatives along with inspectors from EnergySafety and WA Gas Networks (formerly WestNet Energy). Some of the items discussed included:

- EnergySafety's roll as the regulator.
- WA Gas Networks, their roll as gas supplier inspectors.
- Notice of Defect (NOD):
 - what is a NOD;
 - the process;
 - common non-compliances being identified; and
 - the right to an appeal of a NOD and the process.
- The Infringement system:
 - what is an Infringement Notice;
 - why was it introduced; and
 - the process.
- A general Q&A session:
 - who to contact if you're unsure or require advice;
 - regulation clarification or interpretations; and
 - interpretation requests can be made on EnergySafety's website www.energysafety.wa.gov.au.

We all agree, that the regulator (EnergySafety) is to be seen as approachable by gas fitters and for them to feel comfortable contacting EnergySafety or the Gas Supplier's inspectors to ask questions and/or inform them of issues where matters are unclear.

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EnergySafety welcomes the opportunity to attend any gasfitting/plumbing company to meet with gas fitters. To arrange for EnergySafety to attend your workplace, please contact the Gas Inspection Branch email, catherine.gildersleeve@commerce.wa.gov.au or telephone 9422 5297.



A recent meeting with gas fitters from Alinta Assist attended by EnergySafety and WA Gas Networks Inspectors

Gas safety onboard boats

Department of Transport (DOT) require owners of recreational boats with a gas installation to show evidence every five (5) years that their gas installation complies with:

- Gas Standards Act 1972;
- Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999; and
- AS/NZS 5601 Gas Installations.

Without evidence of compliance, vessels will be unable to berth or moor at DOT managed marina/harbour facilities. EnergySafety

understands several private yacht clubs are also adopting these requirements as part of their safety compliance regime.

This DOT requirement has resulted in gas fitters with little or no experience in boat installations being requested to certify such installations.

Several gas fitters have contacted EnergySafety requesting information and guidance on the requirements for gas installations onboard boats. They are not aware of the additional requirements of the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999 – Schedule 6, Division 8 and AS/NZS 5601, Gas Installations that outline the requirements for gas installations onboard boats.

In regards to AS/NZS 5601, the new edition will be sold separately in two parts.

Part 1 – General gas installations.
Part 2 – LP Gas installations in caravans and boats.

The use of LP Gas onboard boats (includes all marine craft) poses additional hazards, therefore requirements differ from normal domestic gas installations. LP Gas is heavier than air and if allowed to escape will tend to sink to the lowest point, which could be a confined area such as a bilge in the case of a boat. If the gas is allowed to accumulate and comes into contact with an ignition source, the result could be tragic.

Some of the unique requirements currently include:

- Pressure test pipe work with no appliances or regulator connected at 200kPa for 10 minutes.
- A gas detection system will be required if a gas appliance is installed below the level of the main deck with a minimum of two detector heads.
- Copper pipe work used must be at least Type B copper tube to AS 1432 requirements and covered with a plastic covering applied by the manufacturer (eg. Kemlag).

All gas installations onboard boats being moored permanently in DOT managed marinas and harbours are now required to comply with the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999 and AS/NZS 5601, Gas Installations. This also includes older boats and vessels which must be made to comply with these **current** requirements. A notice of completion is to be submitted to EnergySafety for any gasfitting work on boats. DOT inspectors will also be looking for the completion badge to ensure compliance.

Further information regarding Department of Transport requirements can be obtained from Department of Transport's Marine Division on (08) 9216 8999 or via the internet at www.transport.wa.gov.au/facilityrequirements

Prosecutions for breaches of gas legislation 1 September 2010 to 30 November 2010

Name (and suburb of residence at time of offence)	Licence No.	Legislation and Breach	Offence	Fine (\$)	Court Costs (\$)
Jesse Gregory (Gidgegannup)	NLH	GSA 13A(2)	Carried out gasfitting work while not holding a certificate of competency, permit or authorisation allowing him to do so.	7,000	649.70

Legend NLH No Licence Held
GSA Gas Standards Act 1972
GSR Gas Standards (Gasfitting & Consumer Gas Installations) Regulations 1999