

energy

Bulletin

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Teenage trade assistant fatality raises timely reminders

Following the electrocution of a trade assistant while working in a roof space, it is timely to remind all electrical contractors and electricians about the permissible scope of work for such workers and to be aware of the potential dangers of working in roof spaces.

Trade assistants

The requirement to hold a licence or permit to perform electrical work is stated explicitly in Regulation 19(1) of the Electricity (Licensing) Regulations 1991.

Trade assistants are not permitted to carry out any electrical work – they are not licensed.

They must not be sent up into roof spaces, pull cables into or within buildings, affix switchboards, switches or socket outlets or install conduits in buildings.

The role of trade assistants essentially is to provide unskilled labour. They may dig and backfill trenches, lay sand padding, conduits and cables in trenches, carry tools, equipment, conduits and cables on and off work sites and similar jobs.

Deploying trade assistants to perform activities that are part of electrical work may leave licensed electrical contractors and any supervising electricians open to prosecution.

Working safely in roof spaces

Qualified and experienced electrician's have been electrocuted in WA while working in roof spaces.

Working in a roof space always poses a great risk, therefore electrical contractors are urged to remind their electricians and apprentices to always follow these steps before entering a roof space:

1. Carry out a risk assessment.
2. Switch off the main switch, protective devices and fit 'Danger' tags.
3. Wear protective clothing that covers the body from the ankle up to the wrists.
4. Conduct a visual inspection of the roof space before entering it to locate any potential hazards (ie. unenclosed joints).
5. Work with adequate lighting (ie. head torches).
6. Notify someone when you are about to enter the roof space.
7. Only test with the "live" circuits when there is no alternative test method. Then ensure the circuits have RCD protection.

Following these simple steps could be the difference between life and death.



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Unpaid fines referred

In line with other government agencies, EnergySafety now refers unpaid infringements to the Fines Enforcement Registry (FER). When this happens, the infringement notice becomes a court order and further fees are imposed to recover the fine. Failing to pay an infringement notice can result in the loss of a driver's or vehicle licence, even if your fine was not traffic related.

Further information relating to FER can be found at www.courts.dotag.wa.gov.au

New menu-driven telephone system for Licensing

As part of EnergySafety's commitment to a Customer Focused Service Delivery initiative, a menu-driven telephone system has been implemented for the Licensing Office.

The new telephone system will deliver the following benefits:

- The menu options should improve customer service and customer satisfaction.
- Callers will continue to have the option to speak to a customer service officer.
- There is an option to forward callers to the BPOINT telephone payments line to make renewal payments improving customer service.
- The call centre structure and technology allows the ability to easily extract call statistics and reports, as well as view 'real-time' call statistics.
- The call centre will allow for easy prioritisation of calls that come through to the Customer Service Officers, ensuring that waiting calls can be dealt with more efficiently by available staff.

Deadline approaches

Code of Practice for Personnel Electrical Safety for Vegetation Control Work Near Live Powerlines

Vegetation workers pruning within 3 metres of any power lines have till June 30, 2013 to complete EnergySafety's on-line assessment of the Code of Practice. From 1 July 2013, failure to comply with this or any other training requirement in the Code of Practice may result in a \$2,000 infringement notice to a worker and \$8,000 infringement notice to the employer's company.

To complete the on-line assessment visit <http://eprofile.com.au/eswa/> or for further information, please visit our website www.energysafety.wa.gov.au.

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Alternative formats of this publication may be available to meet the needs of people with disabilities.

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electrical

focus

ELECTRICAL SAFETY RECALL – Single module RCBO

(combination RCD & MCB) Hager
'mono' range AD310T, AD316T,
AD320T & AD325T

EnergySafety wishes to alert electrical contractors about the recent recall of "HAGER Safety Switches incorporating a Residual Current Device and Miniature Overcurrent Circuit Breaker (RCBO)".

Electrical contractors must stop installing the above products and contact Hager B&R Pty Ltd to arrange return of their stock and/or replacement of the installed products.

Identification

The recall covers the HAGER brand combined Residual Current Device and Miniature Overcurrent Circuit Breaker (RCBO) with the following model numbers:-

**AD310T,
AD316T,
AD320T, and
AD325T**

These units were sold throughout Australia from July 2010 to August 2012.



Safety issue

Risk of Electric Shock

Some units have been found to malfunction and not switch off the electrical circuit in the event of a fault.

For further information contact

HAGER B&R Pty Ltd

Telephone: 1300 786 685

Website: www.hagerbr.com.au

Email: recall@hagerbr.com.au

To stay informed about all recalls, involving electrical products/equipment, you can visit: <http://www.recalls.gov.au>

You may also wish to subscribe to the email alert service, by registering your details on the website.

Your opportunity to become an Electrical Inspector

EnergySafety's Electricity Directorate has vacancies for electricians interested in the role of a Senior Electrical Inspector.

A pool recruitment process has commenced for permanent and fixed term full-time positions. Applications will be accepted up to 4.30pm on 26 November 2013 and will be assessed on a monthly basis. Those found to be suitable may be offered full-time positions in Cannington, Geraldton or Kalgoorlie as opportunities become available until 30 May 2014.

EnergySafety offers:

- A well-established learning and development program.
- An improved work/life balance through our commitment to flexible working arrangements and attractive leave options.
- The rare opportunity to contribute toward helping to improve safety in the field.
- A proactive and innovative workplace where your ideas and experience are valued.
- A wealth of variety in your day to day work.
- The opportunity to set standards of practice and develop strategic direction to guide the Energy and Safety industry in Western Australia.
- Substantial provision of tools to help you do your job, including laptop, phone and access to a vehicle for business use.

For more information on this role and to apply online, go to www.jobs.wa.gov.au.

Large print versions of application materials are also available. To receive a copy, please contact recruitment on (08) 6461 5942.

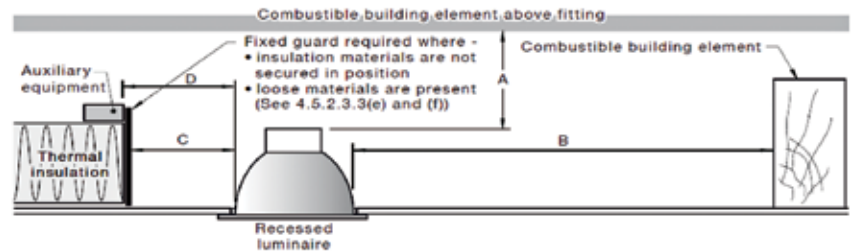
To discuss the role in detail, we also encourage you to contact Peter Johnston, Chief Electrical Inspector Utilisation for a confidential discussion on (08) 9422 5274.

Amendment 2 to the Wiring Rules (AS/NZS 3000:2007)

Amendment 2 to AS/NZS 3000:2007 was published on 14 December 2012 and comes in force in Western Australia on 14 June 2013. This article highlights some of the main changes to the Standard. It is important for electrical contractors and electrical workers to familiarise themselves with all the changes (not only the items listed in this article).

Some of the key changes are:

- **Use of green, yellow or green-yellow sheathing**
The use of green, yellow or green/yellow sheathing for live (active or neutral) conductors is now prohibited. This change applies to all electrical installations including solar PV installations and garden lighting (Clauses 1.7.2(f) and 3.8.1);
- **Additional protection by RCD's**
AS/NZS 3003:2011 does not permit the use, as a leakage protection device, of a 30 mA RCD upstream of a 10 mA RCD in medical treatment areas, since the arrangement does not provide the required discrimination. A new note has been added to the Clause to highlight this existing requirement from AS/NZS 3003:2011 (Clause 2.6.1);
- **Residential electrical installations**
Smoke detectors, combination fan-light-heater units and exhaust fans are to be regarded as lighting points for the purpose of this Clause and are required to be RCD protected (Clause 2.6.3.1);
- **RCD**
Where an RCD is incorporated into a socket-outlet or adjacent to a socket-outlet and specifically intended for the protection of that socket-outlet, the RCD shall interrupt all live (active and neutral) conductors



Dimension	Clearance
A – Clearance above luminaire	200 mm
B – Side clearance to combustible building element	200 mm
C – Side clearance to bulk thermal insulation	50 mm
D – Clearance to auxiliary equipment (transformer for example)	50 mm

FIGURE 4.7 DEFAULT MINIMUM CLEARANCES FOR RECESSED LUMINAIRES

(Clause 2.6.3.2.1);

- **Alterations, additions and repairs**
Where *all of the circuit protection* on a switchboard is replaced or a new switchboard is installed, additional protection by RCDs (as required by this Clause) shall be provided for the final sub-circuits supplied from that switchboard. Socket-outlets which are added to an existing circuit shall be protected by an RCD as well (Clause 2.6.3.4);
- **Hazardous areas**
Switchboards shall not be installed in hazardous areas as defined by AS/NZS 60079.10.1 or AS/NZS 60079.10.2. Only switchboards constructed in accordance with AS/NZS 60079.14 may be installed within a hazardous area for which they have been specifically designed (Clause 2.9.2.5 (k));
- **Recessed luminaires**
Recessed luminaires, such as downlights, have been associated with many house fires throughout Australia. The requirements in AS/NZS 3000:2007 have been revised to try to address issues associated with the installation of these luminaires. Clause 4.5.2.3 and the associated Figure 4.7 (see figure above), showing minimum clearances, have been changed. They now relate to all types of

recessed luminaires (including LEDs, not just incandescent and halogen). The new amendment emphasises that installers must ensure luminaires comply with the following requirements:

- a) Compliance with the manufacturer's installation instructions (a luminaire without instructions may not be suitable or designed to be installed within a barrier);
- b) The luminaire is designed and certified by the manufacturer as being suitable for operation in contact with or covered by thermal insulation;
- c) The luminaire in combination with a barrier, are tested and classified in compliance with AS/NZS 5110 as being suitable for the installation conditions. This was necessary due to unsuitable barriers, such as tin cans or flower pots being used as barriers;
- d) When new recessed luminaires are installed in an accessible roof space, a permanent and legible warning sign (see figure above) shall now be installed in the roof space adjacent to the access panel (man hole) in a position that is visible to a person entering the space (Clause 4.5.2.3.2);

Continued over page

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FIGURE 4.8 WARNING SIGN TO BE INSTALLED IN ACCESSIBLE ROOF SPACES CONTAINING RECESSED LUMINAIRES

e) A new clause providing precautions which must be undertaken for the installation of recessed downlights has been inserted. It includes instructions from manufacturers and the Building Code of Australia (Clause 4.5.2.3.3). Where there are no manufacturer's instructions, the default clearance must be assessed as per figure 4.7.

Switch devices for cooking appliances

The requirements relating to switching devices for cooking appliances have been re-worded. They now apply to cooking appliances without heating elements eg. induction cooktops. Switching devices supplying cooking appliances must now be marked to identify the appliance controlled. Where the open cooking surface is a combined gas/electric appliance incorporating both gas and electric cooking, the switching device shall operate in all live (active and neutral) conductors. This applies to new installations only (Clause 4.7.1);

A gas appliance connected to the electricity supply shall now be provided with an accessible means of electrical isolation adjacent to the appliance (Clause 4.18.1);

- Electrical equipment which is a potential source of ignition, such as socket-outlets, switches, luminaires, switchboards, meter boxes and air-conditioners, shall not be installed within the hazardous area created by a gas cylinder. See figure below for exclusion zone (Clause 4.18.2);
- Air-conditioning and heat pump systems (for example water heaters) incorporating a compressor shall be provided with a lockable isolating switch installed adjacent to the unit, which isolates all parts of the

system including ancillary equipment. This requirement does not apply to appliances supplied from a socket-outlet. Whenever socket-outlets are used for this application, they must be suitable for the environment ie. suitably IP rated (Clause 4.19);

- An accessible equipotential bonding conductor connection point must now be installed where pools have conductive structures, such as reo mesh or reinforcing metal. This point then allows for the connection of bonding conductors to the other conductive fixtures and fittings that may at any time be installed within the pool zone. (Clause 5.6.2.6);
- The Wiring Rules previously allowed the option to use AS/NZS 2381.1 for the selection of electrical equipment for use in hazardous areas. This option has now been removed ie. electrical equipment must now be selected and installed in accordance with AS/NZS 60079.14 (Clause 7.7).

The full amendment is available from Standards Australia at www.saiglobal.com.au.

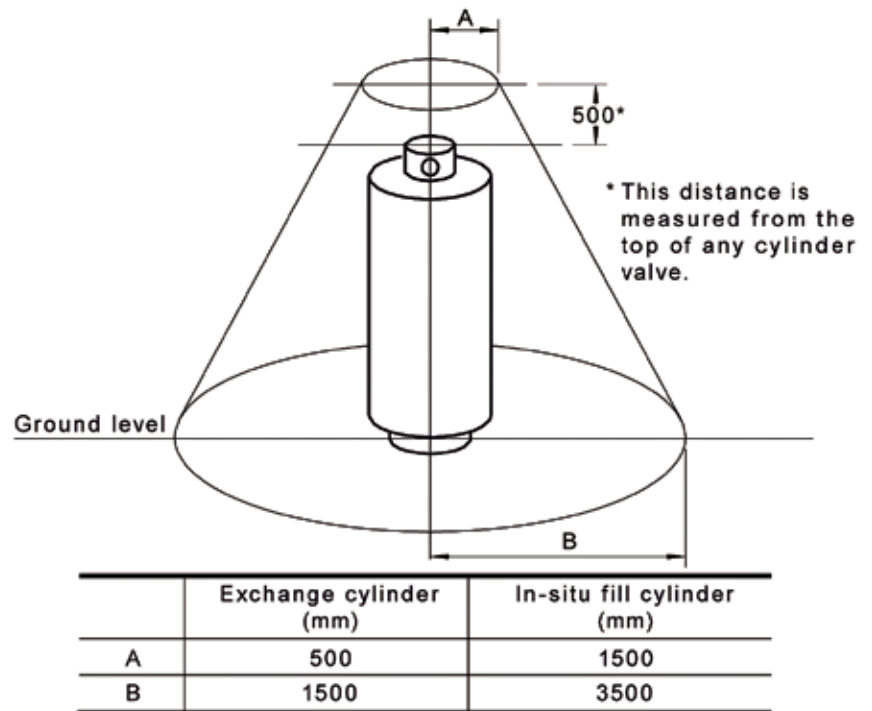


FIGURE 4.10 HAZARDOUS AREA PRESENTED BY A GAS CYLINDER OUTDOORS FOR HEAVIER-THAN-AIR GASES

Continued over page

FAQs Who to contact for a ruling?

The following is to assist electrical contractors in finding the appropriate contacts for rulings:

Q: *Do you require a ruling about an installation that is, or is intended to be connected to a network operator's distribution system?*

A: Contact the appropriate network operator and ask to speak with a Rulings Officer:

- Western Power on 13 10 87 for the South West interconnected system (i.e. Perth, Bunbury, Albany);
- Horizon Power on 6310 1000 for the North West interconnected system.

We also encourage electrical contractors who are members of NECA Western Australia and Master Electricians, to obtain rulings from these organisations as your affiliation gives you the added benefit of free advice.

No EC numbers with advertisements on the Perth Gumtree website

Electrical contractors are again reminded to adhere to the Regulations when placing advertisements on websites.

EnergySafety has been performing regular audits of advertisements for electrical work on the Perth Gumtree website and have discovered numerous advertisements breaching the legislation.

It is a requirement that electrical contractors shall ensure that their electrical contractor's licence numbers appear conspicuously in **any** advertisement for their electrical contracting business, including websites and online directories (ie. Yellow Pages®,

radio and television advertisements, posters, signage on company vehicles and premises and business stationery (ie. business cards and letterhead).

An electrical contractor's licence is issued bearing the prefix EC and a six-digit number. It is acceptable to preface the prefix and number with the words "Licence Number" or any derivative there of (eg. Lic. No. EC000888 or Lic. No. EC888).

Electrician fined \$8,000 and electrical contractor fined \$2,000 for failing to earth the switchboard DIN rail kit

An electrician has been convicted and fined \$8,000 with court costs of \$653.80 for failing to earth the

switchboard DIN rail kit (metallic parts) at a property in Bunbury.

A Western Power Electrical Inspector found the breach of regulations.

The electrician, who is also the nominee and Director of the electrical contractor had submitted a Notice of Completion to the network operator for the electrical installing work when the installation was defective and had not been completed. The electrical contractor was also convicted and fined \$2,000.

EnergySafety has addressed this issue in previous editions of the "Energy Bulletin" but still continues to find installations where electricians have failed to meet the earthing requirements.



The main switchboard with the DIN rail kit frame not earthed.

Failed bid to challenge an EnergySafety prosecution

An EnergySafety investigation revealed that a nominee electrician carried out substandard and unsafe electrical installing work at a hanger located at an airfield in Nambeelup.

The Western Power inspector who carried out an inspection of the electrical installing work identified that the electrician had failed to install an MEN connection (link) between the main earthing terminal, connection or bar and the supply neutral bar at the hanger switchboard.

The matter went to court and on the advice of the electrician's legal representative from NECA Western Australia, the electrician pleaded that the prosecution had been improperly brought on two grounds. Firstly, that the prosecutor (the Clerical Officer who had signed off on the Prosecution Notices which had initiated the prosecution action) had no power to commence a prosecution and secondly, that the procedures set out in the Electricity (Licensing) Regulations 1991 had not been followed, therefore invalidating the prosecution.

On the first grounds, Magistrate Edwards found that the Regulations do not require the Director to follow the procedures in Parts 3 and 4 of the Regulations prior to commencing a prosecution and that the Clerical Officer is an authorised person under Section 20 of the *Criminal Procedure Act* and is therefore authorised to commence a prosecution.

On the second grounds, NECA had put forth the argument that disciplinary proceedings should have commenced prior to prosecution action proceeding against his client. Magistrate Edwards found that it was not an allegation which could be considered as proper cause for

disciplinary proceedings as set out in the Regulations. Therefore the Director is not obliged to follow the disciplinary procedures set out in the Regulations.

Magistrate Edwards went on to conclude that "the defence submissions therefore fail and in my view, the prosecution is properly brought."

The electrician then entered a plea of guilty and was convicted and fined \$5,000. Magistrate Edwards also issued court costs of \$2,728.80 and stated, "Given that submissions that were made as to the appropriateness of the prosecution and whether or not it was properly brought involved considerations as to the nature of the Regulations, the Act and the *Criminal Procedures Act* and in my view the costs that are being sought are reasonable in those circumstances."

Do you require more "Notices" and Electrical Safety Certificates?

If you require more books of Preliminary Notices/Notices of Completion or Electrical Safety Certificates, you can obtain them by contacting EnergySafety's Licensing Office in one of the following ways:

1. Phone – 9422 5282
2. Email – energylicensing@commerce.wa.gov.au
3. In person – at Level 1, 303 Sevenoaks Street, Cannington.

How to proceed when your electricians find unenclosed joints

EnergySafety is concerned about the number of reports received about unenclosed joints in insulated cables in ceiling spaces and similar

areas of existing installations. These present a serious potential hazard and must be rectified when discovered.

In the 1970s and early 1980s, joints for electrical cables in ceiling spaces of dwellings and buildings were often only wrapped in insulating tape. The insulation tape deteriorates and falls away, exposing live wires.

Electrical contractors are urged to remind their employees that whenever they come across unenclosed joints, the owner or occupier of the property should be advised that remedial work will have to be carried out by a licensed electrical contractor. The onus is on the owner of the premise to have the remedial work carried out.

At that point, your employee should issue an advisory leaflet from EnergySafety to the owner or occupier. This leaflet was produced in August 2011 and will inform them of the situation, associated hazards and rectification requirements. The advisory leaflet (information sheet) can be downloaded from the EnergySafety website at www.energysafety.wa.gov.au

If the occupier is not the owner of the premise, then the occupier is expected to hand the leaflet to the owner.

As per the regulation requirements, you are then to notify the network operator of the situation, as unenclosed joints are considered serious defects.



Unenclosed joint and unterminated cables in the ceiling space.

Prosecutions for breaches of electricity legislation

Between 1 January 2013 and 31 March 2013

Name (and suburb of residence at time of offence)	Licence No.	Legislation and Breach	Offence	Date of Offence	Fine (\$)	Court Costs (\$)
Warwick Broad (Darch)	EW131600	Regulation 49(1) E(L)R 1991	Carried out unsafe and substandard electrical work	Between 14/02/11 and 22/02/11	5,000.00	650.80
Brian Lynch (Kununurra)	EW164706	Regulation 49(1) E(L)R 1991	Carried out unsafe and substandard electrical work	Between 19/11/10 and 2/12/10	10,000.00	575.00
Robert Pugh (Warnbro)	EW162853	Regulation 49(1) E(L)R 1991	Carried out unsafe and substandard electrical work	29/12/10	10,000.00	570.90
Daryl Hueppauff (Bunbury)	EW116484	Regulation 49(1) E(L)R 1991	Carried out unsafe and substandard electrical work	23/12/10	8,000.00	653.80
D & L Hueppauff Pty Ltd (Bunbury)	EC005377	Regulation 52(3) E(L)R 1991	Submitting a Notice of Completion to the network operator when the electrical work was defective and therefore incomplete	23/12/10	2,000.00	653.80
Vernon Ivan Postmus T/As V J Electrical (Warnbro)	EC007688	Regulation 52(3) E(L)R 1991	Submitting a Notice of Completion to the network operator when the electrical work was defective and therefore incomplete	29/12/10	1,000.00	653.80
Craig Walker T/ As Zaps Electrical (Greenfields)	EC003226	Regulation 52C(1)(b)(i) E(L)R 1991	Submitting a Notice of Completion to the network operator when the completed electrical installing work had not been checked and tested to ensure it was safe	Between 23/07/10 and 16/08/10	5,000.00	2,650.00
Electricity Networks Corporation T/As Western Power (Perth)	EC004931	EA Regulation 25(1)(A)	Failed to maintain all service apparatus in a safe and fit condition for supplying electricity	21/01/11	45,000.00	570.90

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focus

Kleenheat Gas enters the natural gas retail market

On 24 March 2013, Kleenheat Gas announced its entrance into the Western Australian natural gas market in competition with Alinta Energy, offering residential consumers a choice of retailers for the very first time.

Kleenheat Gas will be able to supply residential, small business, commercial and industrial customers from Geraldton to Busselton connected to the Mid-West/South-West main distribution system that takes gas from the Dampier to Bunbury pipeline (excluding Kalgoorlie and Esperance.)

Kleenheat Gas can supply existing Alinta customers from Geraldton to Busselton, including Perth, with the same natural gas from the North West, delivered through the same pipes and meters.

The network infrastructure continues to be owned and operated by ATCO Gas Australia, meaning for gas fitters that the process for customer installations remains the same; the only difference for gas fitters is sending completed Request For Gas forms to the appropriate retailer the customer has chosen.

The Kleenheat Request for Gas form can be found at www.kleenheatng.com.au/resources/docs/forms/request-for-gas-form

Notice of Completions for natural gas must be submitted to ATCO Gas Australia, and LPG installations are to be submitted through to the LPG supplier.

The Gas Standards (Infringement Notices) Regulations 2007

The Gas Standards (Infringement Notices) Regulations 2007 have had an enormous impact on lifting the standards of gasfitting in Western Australia. The Infringement Notice process has reduced the number of prosecutions, an extremely intensive process resulting in the offender having to appear in court.

All Notices of Defect issued in Western Australia are assessed by an EnergySafety gas inspector. The process also enables the gas inspector to contact the gas fitter that has received a Notice of Defect (NOD) for undertaking non-complying gasfitting work. In these conversations with the gas inspector, the gas fitter is asked a number of questions relating to the non-compliances.

Given that there may be mitigating circumstances not all NODs result in the issuing of an Infringement Notice. In fact, over the previous twelve months (April 2012 – March 2013), 709 NODs have been assessed by an EnergySafety gas inspector that has resulted in 412 verbal warnings, 104 written warnings and 78 Infringement Notices issued.

These fines have totalled \$53,200.

It is a timely reminder that all gasfitting work undertaken in Western Australia requires a Notice of Completion to be given to the gas supplier and to the person requesting the gasfitting work. A compliance badge duly completed is also required to be fitted to the gas installation. There are a number of gas fitters that still do not take the time to complete these tasks.

A person who undertakes gasfitting work without the appropriate gasfitting permit may be issued an Infringement Notice that carries a \$1000 fine. If the matter is of a more serious nature, a person may be prosecuted with a more substantial fine to a maximum of \$50,000.

A prison term for unregistered gasfitting work in the UK

If you felt the regulations and penalties regarding gasfitting in Western Australia were harsh, recent reports from the United Kingdom (UK) suggest illegal gasfitting work can ultimately lead to prison time.

Each year in the UK there are a number of deaths related to Carbon Monoxide (CO) poisoning caused by poor building practices, faulty servicing and/or lack of servicing of gas appliances.

In many reported cases through the Magistrates Courts persons representing themselves as

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Certified gas technicians (gas fitters) are improperly servicing central heat boilers commonly used for heating in residential housing in the UK.

“Coronation Street” a long running “television soapy” in the UK dramatised a real life situation where a popular character “Fiz Brown” suffered the effects of CO poisoning caused by a faulty central heat boiler installed in the house. In this instance an unregistered technician had serviced the boiler and had left it in a dangerous condition with the flue spilling products of combustion into the house.

During the episode Fitz was found unconscious on New Year’s Eve after suffering the symptoms of CO poisoning which had been mistakenly diagnosed as the “common flu”.

It is a story that could be repeated in Western Australia as there is evidence emerging of unskilled interference in servicing and maintaining gas installations and appliances.

If caught, you may not incur a prison sentence, however there are severe penalties for carrying out gasfitting work without the appropriate gasfitting permit.

With the cooler months almost upon us, correct servicing of gas appliances by experienced gas fitters is essential as required under the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999.

Should you have clients with larger commercial and industrial gas installations and have numerous gas appliances, EnergySafety has reprinted the “Gas Service Logbook” that may be used as an alternative to placing service stickers on gas appliances in regards to:

Regulation 23 Servicing of a consumer’s gas installation

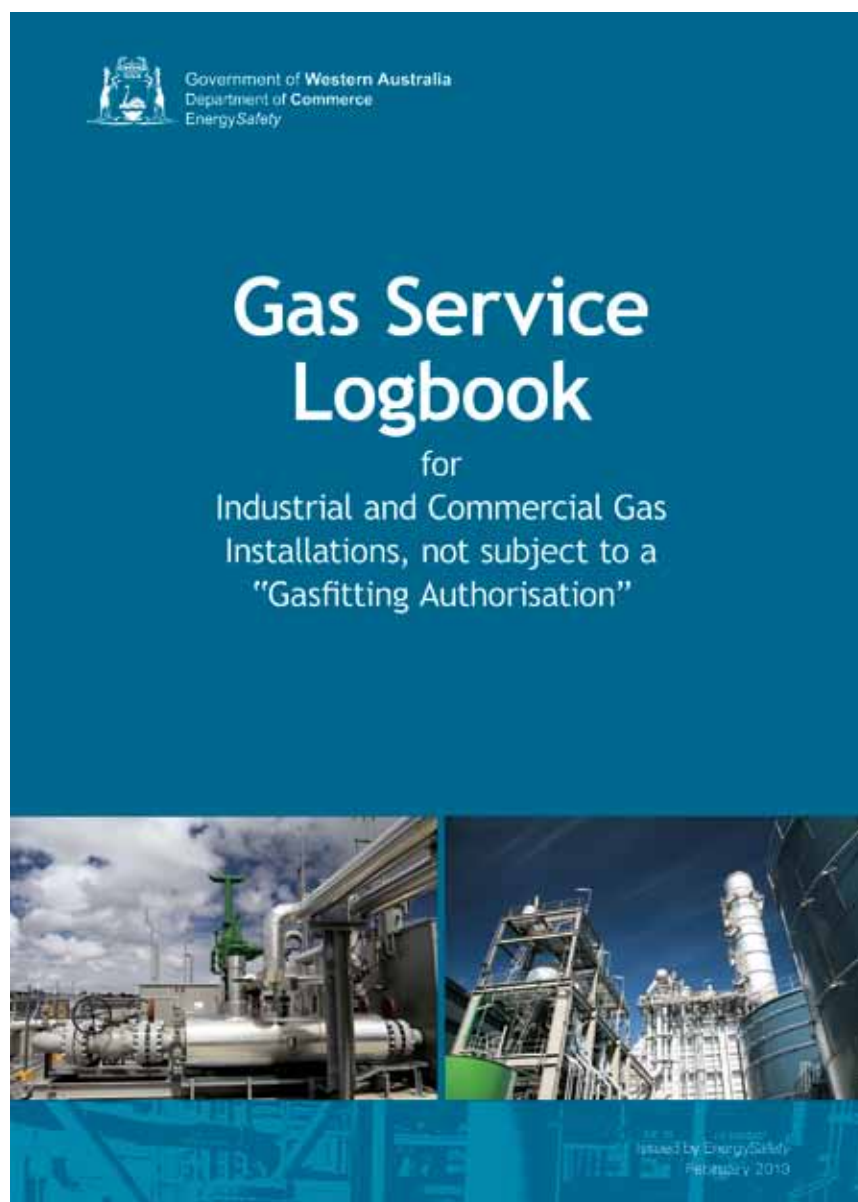
- (1) When a gas fitter services a consumer’s gas installation the gas fitter must record the service information.
- (2) The service information must be—
 - (a) clearly and legibly displayed in permanent form on a badge or label attached to the consumer’s gas installation; or
 - (b) recorded in accordance with an approval under subregulation (3).
- (3) The Director may, in a particular case or class of case, approve in writing another means of recording service information for a consumer’s gas installation

- (4) In this regulation –

Service information, in relation to the servicing of a consumer’s gas installation, means –

 - (a) the date that the servicing took place; and
 - (b) the identification number endorsed on the permit or authorisation held by the registered gas fitter who did or supervised the servicing.

Should you wish to obtain copies of the “Gas Service Logbook” please call the Gas Inspection Branch on telephone 9422 5297. There is no charge for these logbooks.



Ventilation via an external wall cavity

There remains some confusion as to the acceptability of providing ventilation for gas appliances via the wall cavity on an external wall. A note attached to Table 6.1 in AS/NZS 5601.1:2010 states that ventilation direct to the outside includes via a wall cavity ventilated to the outside. Ventilated to outside includes via a roof or under floor space that is ventilated to outside.

There is a condition that applies to any ventilation, it must be permanent and the ventilation path must remain unobstructed by building material or insulation at all times. Adoption of six star energy rating as a requirement to get building approval for new homes has resulted in the external wall cavities being insulated.

In many cases the wall insulation blocks the cavity and ventilation via the wall cavity is not acceptable. However there are some wall insulations that do not block the ventilation path and in these cases the ventilation via the wall cavity is acceptable.

An example of this is where the insulation material is permanently fixed between the inner and outer brick leaf maintaining the unobstructed ventilation path through the wall cavity into the ventilated roof space (see figure below).

Where the required ventilation for gas appliances is via a wall cavity and roof or under floor ventilated space the gas fitter must ensure that:

- the ventilation path is unobstructed;
- the free area of the ventilation path is not restricted to less than the required minimum free area anywhere along its path; and
- the roof or under floor space is ventilated to outside.

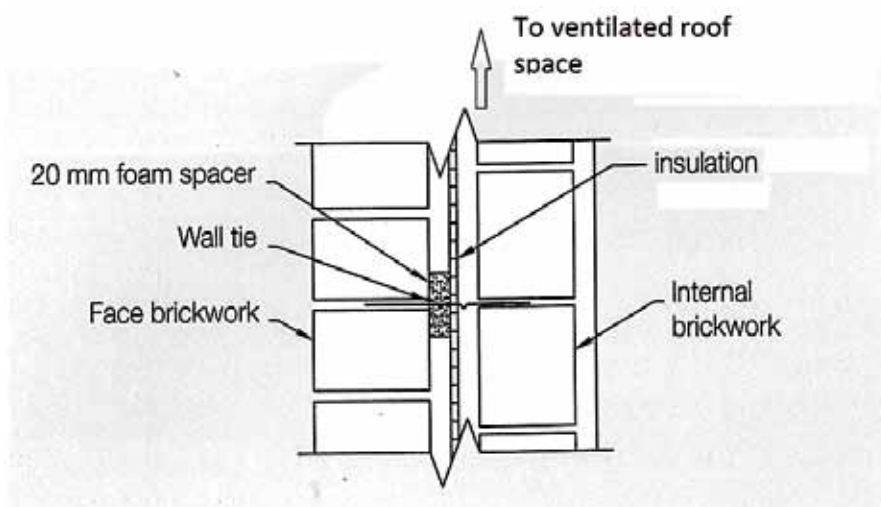
Safety with single skin flues on space heaters

EnergySafety has been advised that there is some difficulty in sourcing transition fittings from rectangular flue spigots to round twin skin flues for space heaters. This has necessitated the use of round single skin flues on some gas space heater installations.

There is nothing in the requirements of the *Gas Standards Act 1972* that prohibits the use of single skin flues in these situations provided the manufacturer's instructions do not require the use of twin skin flues.

Although not prohibited, the use of single skin flues may represent a hazard to persons, pets, and building fabric in the immediate area of the installation. To minimise the hazard EnergySafety recommends that the following considerations be applied before the use of single skin flues in these installations:

- The manufacturer is consulted on the effect of the single skin flue on the performance of the heater. Higher heat loss from a single skin flue may reduce the draft effect of the flue which can affect the safe operation of the appliance.
- Where the flue is installed in an area where it may be contacted by people, the external temperature of the flue material shall not exceed 50°C or the flue must be guarded. This will reduce the potential for burns from accidental contact with the flue and complies with the requirements of AS/NZS 2286:2001 Space heaters—Secondary guards.



An accident waiting to happen

LP Gas suppliers are seeing an increasing number of installations originally set up for 2 x 45kg LP Gas cylinders with temporary 9kg LP Gas cylinders attached.

Installations such as the one illustrated are considered temporary and hazardous, with the cylinder in this case balancing precariously on an old couch. The cylinder is not fixed to the wall nor is it on a non-combustible base therefore creating a fire hazard. Furthermore a cylinder in this position could result in serious injury to a small child should it become dislodged from its temporary stand.

As a regulator, EnergySafety does not condone this type of gas installation.

It is highly recommended that the standard installation fix for 45kg LP Gas cylinders only be installed. It may be that the consumer just moving into a new residence has only a small load (perhaps a cooktop). Rather than catering for a smaller gas cylinder it is wise to install only a conventional LP Gas installation (changeover regulator and hood) at the recommended height. Should the consumer install more gas appliances in the future there is no need to upgrade that portion of the gas installation.

As a gas fitter always meet compliance and safety requirements and don't change the gas installation to suit the smaller 9kg LP Gas cylinders.



Summary of infringements for breaches of gas legislation

1 January to 31 March 2013

Legislation and Breach	Offence	Number of Infringements	Fine (\$)
GSA S13(2)	Commencing to supply gas to consumer gas installation that has not been inspected in accordance with Inspection Policy Statement and Plan or does not comply with prescribed requirements	1	10,000
GSA S13A(2)	Engaging in an operation or carrying out work or process, of a kind prescribed to be nature of gasfitting work otherwise than in a prescribed capacity without a permit of certificate of competency	1	1,000
GSA S13D(1)	Selling, hiring, advertising for sale or installing a Type A Gas appliance that: – (a) is not approved; or (b) is not marked, stamped or labelled in approved manner.	1	1,000
GSR R18(2)	Failing to ensure gas installation complied with prescribed requirements and is safe to use	2	1,200
GSR R20(1)	Installing appliance, apparatus, or part of contrary to manufacturer's instructions	3	1,800
GSR R26(1)(A)	Failing to ensure gas installation system is gas-tight	2	1,200
GSR R28(2)	Failing to attach approved badge or label on completion of work	7	2,800
GSR R28(3)	Failing to give notice of completion of gasfitting work within required time	1	400
	Total:	18	19,400

Legend GSA Gas Standards Act 1972

GSR Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999