

Submission to the Senate Standing Committee for Environment, Water, Heritage and the Arts on the

Energy Efficient Homes Package

By

Kevin & Christine Fuller

7th March 2010

Points for Senate Inquiry

Firstly, let us put on record that we truly believe that there were in the beginning, and still are, a number of professional insulation installation companies across Australia who already had a skilled workforce, had good training, work processes and practices in place, performed safe and effective installation of insulation, over a number of years.

We used to believe and trust in 'the system', trust that our elected representatives would do just that represent us – the common man. We entrusted our only child to the system and it killed him.

We believe that the horrendous problems and life-changing tragedies that occurred during the life of this program are as a direct result of the Department's / Government's - indecision, lack of follow through, lack of accountability and the disastrous mismanagement of the new companies that were allowed to flood into this program.

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WH&S Queensland 1st November 2009 alert	A14
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Terms of Reference

(ii) B & D Quoting

There was obviously no control over accurate and economic quoting. Most quotes from 'shonky' installers at the start were for \$1,600 (or more) once the limit was reduced most quotes were for \$1,200. It is so miraculous how the cost to these installation companies went down overnight.

There was a table which showed the maximum (based on average?) dollars per square meter that was allowed to be charged for each type of insulation – was this expected cost ever compared to the cost charged before payment was approved? How many if any claims were rejected or even questioned against this table?

To overcome this table a quote could list a larger than actual floor area to "allow or justify" a larger than actual claim payment – how many were checked, if any? How many were challenged?

Minimal or no INSPECTION, just expected everyone to do the right thing.

(ii) B Insulation Practices

People do what is INSPECTED not what is EXPECTED.

According to FOI documents we now know of at least one company who was approved on to the program with NO prior experience, had NONE of the listed and required qualifications and planned to do none of the work themselves.

As there was a **large amount of money** readily available and <u>very little inspection done</u> in the beginning, lots of the new / shonky insulation companies either totally ignored or postponed the requirements for training and supervision – as they knew they would not get found out! NO INSPECTION!

Of the 2,449 businesses on the approved list, at the close of the scheme a total of only 3,700 individuals had been through the new training program. Some companies put through multiple people – does anyone know how many of those 3,700 were 'hands-on' installers? Or were they only the principals and the odd supervisor? For Matthew's employer the people listed as having been trained were the principal and his son. These trained people then hired 'lackeys' to do the hard work – but never got around to training them effectively.

There was NO

INSTRUCTION by either the Government, the Program or the employer to get electrical checks done prior to entering the roof space or to turn the power off.

Or it was ignored by a number of companies and not passed on to the workers as another two (2) Queenslanders / Australians were electrocuted in the course of their employment under this Program.

I strongly suggest you read it and imagine that you were an installer who is paid by the job and with only a white card (safety card) for experience. Would you be scared when you read through it? Would you really think that you are taking the time to complete the form to make sure that you and your workmate are safe or that you are covering the risk for the Government? Just completing another piece of bureaucratic paperwork, so I can make money.

(ii) C Protection against rorting and abuse of the rebate

The Government Department EXPECTED that a supervisor (authorized, trained and listed by the Government Department) to be on site for all jobs where untrained and unskilled people were employed under the program to install government funded insulation.

Did anyone in the Government Department ever think of checking who signed the work orders at the house? Did anyone ever check to see if the signatory was an approved and qualified installer for that company, prior to approving the payment? I believe not, or no-one signed the customer copy and the supervisor signed it back at the office or a supervisor would have signed for so many houses in the one day (going from job to job just signing the forms) that someone in the Government Department should have been able to pick up that the amount of houses that one supervisor signed for in one day was beyond the number any human could possibly have achieved.

(ii) E the level of imported insulation to meet demand

The Government said that they were putting this program in place to overcome the impact of the GFC in Australia and to stimulate the Australian economy. Why then did the Government Department allow SO MUCH of the insulation to be imported? Particularly for sub-standard insulation to be allowed into the country and paid for by the Government Department, without checking that it met the required standards?

Why was the program not managed so that the installations kept in line with the Australian manufacture of insulation? Even more jobs, more profit and more stimulus for Australia.

Why did we stimulate the economies of China and USA?

(ii) G Waste, inefficiency and mismanagement

ICANZ reported that after five (5) deaths <u>in New Zealand in 2007</u> metal staples were banned for installing foil insulation, in New Zealand. Why this decision was not also brought across the Tasman and why Australia did not follow suit on the New Zealand experience is way beyond belief!

Why did the Australian Government allow two (2) young Australian men to be electrocuted – just because Australia allowed metal staples to be used at the start of the Program. Can't we learn from the experience of others? This amounts to gross negligence and gross mismanagement – if I can find this out after a few minutes on Google, why can't a Government Department, a Minister, his aids or ICANZ find out, remember it and table it?

Minister Garrett, representing the Government Department, has stated a number of times that he gets a lot of his information from ICANZ and their information helped formulate the program. It is unfortunate to find out that the two (2) people representing ICANZ in Australia are both major manufacturers of insulation.

There was obviously NO communication between the Department and Minister Garrett on risk management – apparently. The Minter Ellison report was not read, was not actioned – yet someone in the department must have read it and ignored it! Otherwise it was another large waste of money.

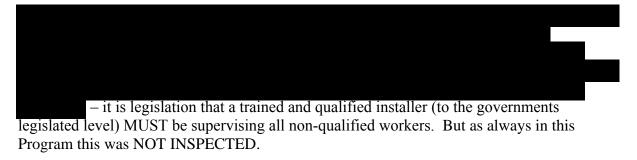
There was obviously no control over the payments made, just look at the news reports. The government just throws away tax payers money, for another example take the \$41.2m that we now have to give to the unemployed people as a result of closing the scheme. Take the many millions that we now have to throw at the checking of foil and batt insulation as a result of shonky product and shonky training, no supervision and no INSPECTION!

Every step, every form, every change was made to ensure that there was always distance between the problem and the Government Department. There were lots of times that the process required untrained and unskilled people to sign off on the installation to absolve the Government Department from all responsibility and risk. When a home owner signs the work order do they really know what they are signing, what their signature means – how many people read the fine print? All of the tick-and-flick 'safety' forms that were implemented are also designed to absolve the Government Department.

There is little chance that a tick-and-flick form given to an untrained, unskilled employee employed by a new shonky company, will be trained and encouraged to do all the checks. More likely as they are paid by the job, they would tick and flick without checking – take the risk, as they knew no-one would ever check.

Remember when you were all young? When you were starting your lives, trying to save up to afford a place of your own, to move in with the love of your life? You would have done any job, done it well to ensure that your dream came true.

Minimal effective training was done to the poor Joe Blow who had to go in the roof and do the work!





"We were given a booklet and told what to look our for, but there was no electrical safety training" "about 40 to 50 per cent of all the homes we checked had something wrong with them" "we did a report, took photographs, told the homeowner what the problem was – then it was up to the homeowner to get the installer back to fix it"

This appeared in the Courier Mail Thursday 11th February 2010. Where did the reports go? Who followed up on the problems and the trends? Was anything changed as a result?

Most of the Governments 'improvements' were done after the event, or as a direct result of an injury, death, fire or complaint, all re-active management not enough pro-active management was done. The Minister and the Department did not listen to the early warnings that they were bombarded with.

The Department acknowledged "at the very outset" that "there is an inherent risk working in ceilings". The department also acknowledged that prior to the Program "fires were associated with insulation". What did the Minister and the Government Department do to manage these risks? Did the Minister and the Government Department take heed and create manageable work process flows and procedures to overcome these inherent risks – in their new program, prior to the implementation? The Minter Ellison report also lists some high and extreme risks observed prior to the implementation of the Program. It seems all that was done was to avoid the risks, contract it out, keep everything at arms length and HOPE that it will be OK.

Workplace Health & Safety departments around the country stated early on that

"It doesn't matter how perfect your regulations are going to look on paper, we simply do not have the wherewithal, the manpower, the expertise to deliver on this"

Yet the Minister and the Government Department pushed ahead anyway, once again absolving themselves, not caring about the outcome, working on the premise that their plans were "capable of tolerably managing the risk". So the death of four young Australians is tolerable? The loss of someone's home is tolerable? If you ask the people and families involved they will not say that it is tolerable. That sort of justification belongs in war time, not when the country is trying to implement a "green" initiative!

If the Minister and the Government Department truly wanted a positive outcome why did they not fund additional WH&S people into the states to cover <u>all the known risks?</u> Why did

they continue to abdicate their responsibility?

1.1million homes were insulated under the program to February 2010 with \$1.4 billion approved for payment. There was a rapid escalation of installations from September 2009 peaking around 176,000 installations in November 2009, over double the expected rate with very limited or NO control over the quality of install or product. The government estimates that around 250,000 homes have an issue. So a 25% failure rate is a tremendous waste of effort and money, it does demonstrate clearly the inefficiency and mismanagement of the whole system.

Prime Minister Rudd said on Sydney radio on 25th February 2010 that

"the Environment Department hadn't implemented the program perfectly"

somewhat of an understatement.

(iii) B Advice to Government on safety matters

We wrote personally to Minister Garrett on four (4) occasions. We received two (2) responses (attached). We also wrote to Prime Minister Rudd on two (2) occasions, he responded once (attached).

We informed the Minister and his department that the supplier manufacturer of the foil insulation, on their web site and documentation (see attached), state that: -

SilverCell recommends:

- Power to be turned off before installing the insulation
- A 'Safety Switch' is to be installed for installers and home owners safety
- All SilverCell products should be installed by qualified insulation installers

We pleaded with the Minister to mandate that the power must be turned off prior to entering the roof. The Electrical Safety Office and NECA and others also called for electrical safety changes to be made. They also informed Minister Garrett and his Department that installing foil insulation directly over live wires is a serious risk.

Unfortunately it took two (2) more young Australians to be electrocuted before that step was taken by the Minister and his Department.

On 1st November 2009 Workplace Health and Safety Queensland issued a document called 'Insulation – installing ceiling insulation and your health and safety' (attachment 14). In this document on page 3 it clearly states –

"before proceeding with the installation of insulation materials (particularly foil insulation) turn off all electricity to the property at the main switchboard – there may be a number of main switches e.g. Main switches for light and power, main switch for hot water, main switch or isolator for solar power".

In a call out box below they went on to say

"These switches do not turn off the main electrical cable supplying the switchboard – this cable may run into the ceiling space".

I would be amazed if Minister Garrett or his department were not in regular contact with WH&S Qld, and others, whilst the Department continued to attempt to make the job safer. After all the Ministers favourite words in the media have been Safe, Safety and Safety is the top priority, etc

On the 19th November Peter Garrett is quoted as saying –

"safety is a top priority and the Government will not hesitate to boost safety requirements if necessary" "Safety protections have been built into this program from day one. Clear standards are in place under this program, training is in place that directly addresses safety issues "

On the 22nd February 2010 Peter Garrett is quoted as having said

"I take responsibility for delivering a program..... and for ensuring that it was delivered in a way which was safe and the training standards were in place to enable us to do that"

But it is obvious that that was not true as there have been four deaths, several cases of serious injury and around 93 house fires as a direct result of this program. So how can HE say that

"it was delivered in a way which was safe"?

All any one needed at the time was a simple, standard safety card – a generic safety card, a short course and something that could be done on the web without any "training". It had no specific relevance to installing insulation, electrical safety or on the specific safety issues that would be encountered in the job of installing insulation – another tick in the box rather than effective safety management.

Why did the Minister and his Department not follow the Government published system - the Five Steps of the Risk Management Process? This would have led them to the formal –

Hierarchy of control measures

Control measures should be implemented in the following order:

- 1. get rid of the harm or prevent the risk
- 2. if this is not possible:
 - replace with something less harmful
 - separate people from the harm
 - change work processes or the physical work environment, for example, by redesigning work, plant, equipment, components or premises
 - apply administrative arrangements, for example, limit entry or time spent in a hazardous area
 - use personal protective equipment

(iii) E Imported Insulation products met Australian Standards

Were they even checked? Were they approved not only to the Australian Standard but also approved to be used in the manner and place to which they were to be used? Some insulation should be installed under the eaves or tiles, some on the rafters, some under floor.

After a lot of problems had been discovered with poor quality product a list was eventually drawn up of authorized insulation material. How many people know about this list? Did the government expect the home owner to know that the list existed? Did they expect the home owner to go on the web and check that the product that was actually being installed in their roof space IS on the list? Did the government know what was used in each roof? Can they even tell if it was Australian or imported product?

In Summary: -

The Government should not be allowed to make legislation and programs as bad as they can get away with. With around 200 years of experience we (the people) expect that all legislation and programs will be made robust, able to stand up to challenge, able to accommodate the known failings and rorts, able to be promptly amended as required. We cannot accept the she'll be right mate attitude and approach. We cannot and will not accept second best.

Home owners are now, in some cases, unnecessarily scared, others are justifiably scared, how are they meant to know if their home is electrically safe and safe from fire? If their home will still be there when they come home from work? That it will not have burnt down when they are out, or more scary still burnt down whilst they are still in it – asleep at night.

If this program was handled well from the start it would have been a feather in the cap for the Federal Government, as it is the government now looks like they couldn't manage their way out of a paper bag.

Peter Garrett has continually and strenuously denied any accountability or responsibility for the disastrously mismanaged Energy Efficiency schemes. This mismanagement unnecessarily cost the lives of 4 young Australians, cost 93 families their home and a large number of severe injuries and near miss accidents.

Peter Garrett claims <u>not</u> to have been warned, <u>not</u> to have read anything and <u>not</u> to have been informed, even by his own department, until this month! To us that is totally inconceivable and unbelievable.

If Peter Garrett was in the private sector he <u>could not and would not</u> be allowed to create a defense from the stance of "I did not know, I was not informed, etc". As the manager and department head (read Managing Director or any other private sector management title) he WOULD BE accountable even though he might plead he did not know, he would be measured on things like – why did he not take the time to find out, when he was made aware <u>why did he not react effectively and decisively</u> to the many warnings <u>he was given</u>.

Peter Garrett has never taken responsibility for the deaths of the four young Australians. They were not dole bludgers, they wanted to do a good days work for a fair days pay – and the system killed them. It took 5 to die in NZ before it was changed <u>– in 2007</u>. Why didn't Peter Garrett, ICANZ and the Australian Government learn from the NZ experience?

Peter Garrett wasted the money that he paid for the report by NOT following up on the report, NOT reading it and NOT taking ANY of it into his plans. The report recommended that the implementation date be delayed for 3 months, that it should be implemented in Sydney and Melbourne metropolitan areas as a trial at first, plus many other safety suggestions that were totally ignored.

It is not acceptable to EXPECT things will happen, most people only do what is INSPECTED not what is expected.

The rush for jobs at any cost allowed too many non-skilled insulation companies to enter the market, some at the last minute, just to get their hands on the money that was being thrown into this scheme – it was like a license to print money! This obviously was reflected in the quality of work and in the lack of training and the poor safety outcomes.

Minimal effective training was done to the new Insulation fitter who had to go in the roof and do the work!

In hindsight what the government did was devise their system, a system that <u>expects</u> that a supervisor WILL be on the job. <u>Expect</u> that the workers will know what to do. <u>Expect</u> that the home owners will know what to do. <u>Expect</u> that months later "the government will go and check a random sample" – <u>Expect</u> that everything will be OK.

Very little effective management and too much expectation – not enough INSPECTION and MANAGEMENT

We are concerned that the Government now want to rush in once again with the next version of the insulation program – it has already been reported that Kevin Rudd

"has signalled that he may also start the new scheme earlier to protect jobs".

When the Minister and his Government Department cannot acknowledge their previous errors how can the government be sure – how can Australia be sure - that <u>all Australians will be safe</u> with the new system? The Government's current track record is not good, they are not known for their skills at listening to advice or for taking decisive action when required.

We trust that this Senate Inquiry will ensure the ongoing safety of all Australians in the next Insulation scheme, that you will ensure that all the now known issues will be addressed in the new scheme, that there will be Inspection and effective management and control

Regards Kevin & Christine Fuller

Kevin Fuller



From:

autoresponder@aph.gov.au

Sent:

Friday, 6 November 2009 9:36 AM

To: Subject: Kevin Fuller Confirmation

Thank you for your time, your comments have been successfully submitted via http://www.aph.gov.au Please do not respond to this email

Comments: Hi Peter

I am the father of Matthew James Fuller who was recently employed company that are on your approved Insulation Provider Register As it is difficult to get to you i have written to Kevin Keefe and Kathy Belka with the exprest request that YOU get the information - not just YOUR DEPARTMENT this is being discussed in the Qld parliament next week. it is part of an ongoing WH&SQ investigation and hopefully prosecution. i have not gone to the media or sensationalised my son's death and the circumstances of is death, yet. I am happy with the work being done by WH&SQ so far

there are things that WH&SQ and i cannot do - BUT YOU CAN. I ask as a father that you serve another Australian and CONSIDER and MAKE THE CHANGES that i think are not only reasonable but prudent given the circumstances

Peter I would like YOU to deal with this, i would like YOU to respond to this request (see email) the State MP has been supportive, the local Federal MP has been supportive, local WH&S and Workcover have been supportive - but they can all only go so far.

As the head of the department that has the power to stop this happening to anyone else i ask that you too get on board and support the changes that not only "expect" that the companies should comply but install a process that they will ENSURE that comply or get struck off

please confirm receipt of this request and advise what steps you will take to address my concerns

thanks and regards Kevin Anthony Fuller

Name: Mr Kevin Fuller

Address:

City:

State or Territory:

Postcode:

Country: Australia

Telephone number:

Email Address:





The Hon Peter Garrett AM MP

Minister for the Environment, Heritage and the Arts

C09/19331

Mr Kevin Fuller

1 1 NOV 2009

Dear Mr Fuller

I'm writing in reply to your email to me of 6 November to say how sorry I was to hear of the death of your son Matthew and to convey my deepest sympathy to you and your family for this tragic loss.

I am extremely concerned that any incidents of this kind should occur and understand that thorough and quick action by way of response is very important.

I acknowledge your concerns about safety risks. Please be aware that from the announcement of the start of the Home Insulation Program, the Government placed a strong emphasis on safety. All workers under the Program must have proof of mandatory occupational health and safety induction training completed in their relevant state or territory. Supervisors must also meet additional minimum competency requirements under the Program. These requirements are in addition to the obligations that employers have under relevant state and territory laws to provide adequate training and supervision, and to provide safe systems of work, along with a safe working environment for their employees. I note that in Queensland penalties for breaches of these laws include fines and imprisonment.

Prior to the Program, no national unit of competency for the installation of ceiling insulation was in place. The Government worked in consultation with industry and training organisations to develop a national unit of competency for insulation installers. The training includes a range of training materials that specifically address the range of electrical and other hazards that installers need to be aware of.

I note the Queensland authorities are investigating the circumstances of the incident involving your son. My Department is currently liaising with the relevant Queensland authorities in relation to their ongoing investigations. In addition, my Department has taken steps to review whether the relevant installer has complied with its obligations under the Program, and has asked them to show cause why they should not be removed from the Register. I will ensure action is taken, including deregistration as appropriate, if an installer has not complied with the Program requirements. I also note that you have made a number of recommendations in relation to further strengthening the Program, including: banning the use of metal staples to fasten foil insulation; implementing targeted electrical audits of foil installations; slowing demand; and stronger audits to ensure that all products used under the Program are safe and meet the relevant Australian Standards. I'm also aware that you have sought further information from my Department via a freedom of information process, and my Department is currently facilitating this with no charge to you.

Following discussions with industry, training organisations and electrical regulators, I have now announced a package of changes to the Program that are designed to address the safety concerns that have been raised. New Program guidelines have been issued and the changes are now in force, including:

- a ban on metal fasteners for foil insulation such as metal staples or nails;
- a targeted electrical safety inspection program of Queensland homes with foil insulation installed under the Program, starting at 10 per cent of installations, with the potential to adjust upwards as results are analysed; and
- mandatory installation of covers over downlights and other ceiling appliances, which have always been commonly used but are not compulsory under Australian Standards.

The insulation rebate has also been reduced from \$1,600 to \$1,200 driving greater efficiencies in the market and improving competition. From 1 December 2009 the Government will also:

- publish a 'name and shame list' for any business struck from the Installer Provider Register as a consequence of failure to meet Program guidelines;
- add a requirement for the provision of two genuine independent quotes; and
- add a requirement that a formal risk assessment be completed for every installation before any installer is allowed to start work.

The ban on metal staples and fasteners will immediately reduce the risks for foil insulation installers, while making the application of covers over downlights mandatory further maximises safety.

In addition to these measures, the relevant construction and electrical training bodies are reviewing the insulation training package as a matter of urgency focusing on any additional safety components that should be adopted.

In regards to product quality and safety issues, through our audit and compliance program I expect some 6,000 ceilings to have been inspected by the end of November, escalating to 11,000 by the end of the year. Insulation installers are on notice that we will not hesitate to strike them from the register, take legal action and name and shame them if they are found doing the wrong thing.

Again, please accept my deepest sympathies for your tragic loss. I assure you that the Government will continue working to ensure safety under the Home Insulation Program is maximised as an absolute priority.

Peter Garrett



'Mullen, Faith (P. Garrett, MP)'; 'Mullen, Faith (P.



Kevin Fuller

From:

Kevin Fuller

Sent:

Friday, 27 November 2009 11:25 AM

To:

Friday, 27 November 2009 11.25 Aivi

10:

Garrett, MP)

Cc:

'Low, Adam'; 'Stein, Pat';

Subject:

Electrical Safety

Importance: High

Hi Barry Diekmann & Peter Garrett (Hi Faith, I would like you to please pass this on to Peter Garrett for me)

I have been going back over some of the records I have kept since Matt was killed. I have also been reviewing the available records that form part of the history on the government's various web sites.

One thing has worried me and I thought that you might be the best people to talk to and to confirm what I read or advise me where I am wrong.

Some of the things I read say to me that the power should be turned off before installing insulation in a roof, other parts show it is only a suggestion / recommendation, or that it is good practice.

For example: -

Installer Advice No 11 says clearly to me that the power needs to be off

Installer Advice No 12 says clearly to me that turning off the power is a good practice

Installer Advice No 13 says clearly to me that the government has backed away from any instruction or recommendation that the power needs to be off. Instead they are putting their faith in the Risk Assessment that the Supervisor or Employer will do prior to the installation – in my words pushing all of the responsibility or blame onto the employer. This is all very well when the employer is a good employer, one who knows and cares about what they are doing and cares about their employees and the associated hazards and risks. It does not work if the employer is only in it for the money, with the hope that they will never get caught out, that they will never kill someone or severely injure someone or cause a fire, etc.

This translates in my language to an ongoing HIGH potential for another employee getting killed or injured.

Barry, you know better than any of us how much training and experience it takes to become a skilled and qualified electrician. Even some electricians would struggle to KNOW, in a short space of time, that they would be SAFE in that roof space and they have lots of tools, training and experience. I think that it is sheer optimism on the part of the Government to expect that the suggested Risk Assessment system will work SAFELY for ALL insulation Installers and their employees.

Even the trained Supervisors and the qualified Insulation Installer (business Owner) would struggle to KNOW that the wiring in the roof conforms to AS/NZS 3000 – 2007, to KNOW and prove if the building was constructed prior to 1989, or not. How would they KNOW if the circuit breakers, fuses, wire connections, cables, fitment and placing of cables, light fittings, timers and so on ARE in a GOOD and SAFE condition or that they WORK SAFELY?

In the Hierarchy of Control for Hazards the number one option is ELIMINATION of the Hazard and Risk. So I should think that means if in doubt turn the power off!

Why is there such confusion over wether the power needs to be left on or turned off? Why can't the legislators instruct that as a result of the risk assessment that must be done if there is any doubt over the safety to the installers, the property or the home owners - the electricity should be turned off or the job cannot be done?

On the current version of the web site for the Department of the Environment, Water, Heritage and the Arts

http://www.environment.gov.au/energyefficiency/insulation/installers/index.html
I cannot even find an approved sample or the Government's preferred Risk Assessment form. So how does the Insulation Installer even know what form to use and what the Government expects them to risk assess - as the bare minimum?

Could you please consider my points and respond accordingly

Thanks for your ongoing help and support

Regards Kevin Fuller

My contact details are still the same -

I look forward to your responses, thanks, Kevin

Support details -

Installer advice No. 11 - 19 October 2009

Dear Insulation Installer,

Welcome to the 11th advisory note from the Energy Efficient Homes Package team with guidance on key issues relevant to the Home Insulation Program.

IMPORTANT SAFETY NOTICE

It is important that all installers adhere to safe practices when retro fitting insulation in existing buildings. It is imperative that when installing insulation in roof spaces that the relevant Occupational Health & Safety (OHS) requirements are complied with fully.

There are specific OHS Acts, regulations, codes of practice and Australian Standards which govern health and safety in your workplace. Some of these are national and some are relevant only to individual States and Territories.

Installers should do everything reasonably possible to protect themselves and others from harm.

Installers should ensure that only trained and competent installers are allowed to enter the roof space. The following procedures will help keep your work place safe:

- Turn off the domestic power supply to the work area and when the installation is complete, turn it back on. Check that light switches and power point circuits are operational before you leave.
- Check that residual current devices (circuit breakers) are fitted.
- Locate power cables and fittings before you start installing the insulation and ensure that they will not be in the
 way of any staples or fixings that you will be using.
- Use heat resistant protective down light covers or leave the required clearance, generally at least 50mm or 200mm around halogen down lights.
- Do not leave debris, including off-cuts, rubbish, loose staples etc in the roof space.

It is a safety issue to ensure that electricity is turned off BEFORE undertaking any work in confined roof spaces.

Where required, the appropriate safety equipment should be used, this includes gloves, masks and safety glasses.

As summer approaches be aware that the temperature in a roof cavity can get quite high creating the potential for heat-related illnesses such as dehydration, heat exhaustion, heat stress and heat stroke.

For further information about national workplace safety and compensation contact the Australian Safety and Compensation Council on (02) 6121 6000 or visit the website www.ascc.gov.au.

Installer advice No. 12 - 26 October 2009

Industry comment

Further to the brief information on safety issues provided in Installer Advisory Number 11 of 19 October 2009 the following electrical safety advice has been supplied by Master Electricians Australia:

The process of stapling conductive foils in ceiling spaces where cables are present is highly dangerous. Metal staples may connect a live wire to the entire ceiling of foil without operating protection equipment. This will place the worker and other people entering the ceiling at a very high risk of electrocution. Non conductive securing practices are highly recommended such as taping or nylon staples.

Turning off Main switches and safety switches are good practices but do not eliminate the risk. Many cables in the ceiling are not controlled by these devices.

All cables are to be treated alive until proven deenergised by a licensed electrician.

Master Electricians Australia highly recommend engaging an electrical contractor to perform a final test of the installation to ensure it is left safe.

Installer advice No. 13 1 November 2009

From 1 December 2009, ceiling insulation must not be installed before a Risk Assessment has been completed by the Installer on the approved template. The completed Risk Assessment must be provided if requested for audit purposes.

The site http://www.deir.qld.gov.au/workplace/publications/alerts/insulation_install/index.htm#install

Also says: -

Before you enter the roof cavity to start the installation:

- do a pre-work risk assessment of the roof cavity and advise the owner/occupier of any identified risks that you cannot prevent or minimise:
 - such an on-site operational risk assessment must include the electrical risk from the installation of the ceiling insulation and implement any control measures necessary - records of this assessment must be kept for five years by the insulation installer
 - if specialist expertise is required regarding electrical risks advise the owner/occupier and recommend that a licensed electrical contractor be engaged to provide advice and assist in implementing any control measures to address the risks
 - before proceeding with the installation of insulation materials (particularly foil insulation) turn off all electricity to the property at the main switchboard - there may be a number of main switches e.g. Main switches for light and power, main switch hot water, main switch or isolator for solar power.

These switches do not turn off the main electrical cable supplying the switchboard - this cable may run in the ceiling space.



The Hon Peter Garrett AM MP

Minister for the Environment, Heritage and the Arts

Kevin Fuller

Dear Mr Fuller



Thank you for your email of 27 November 2009 detailing your concerns about the electrical safety risks associated with the installation of ceiling insulation.

I was very saddened by the recent tragic deaths of insulation installers in Queensland and again want to assure you that safety is an absolute priority for the Australian Government under the Home Insulation Program. As per my previous correspondence with you, the Program has incorporated clear guidelines and requirements since its inception, calling up the relevant Australian Standards as well as the relevant state, territory and local government laws and regulations.

Regarding your concerns with the electrical safety advice provided to installers, I understand that Installer Advice Number 12 was designed to clarify and further warn installers of potential dangers in the roof even where the power has been turned off. This additional information was provided to my Department by Master Electricians who felt that this awareness would further reduce safety risks. Installer Advice Number 13 is not designed to preclude warnings provided in Installer Advice Numbers 11 and 12, but to provide installers with additional information on their requirements under the Program.

My Department has worked very closely with Safe Work Australia, Electrical Regulatory Authorities Council, Queensland Electrical Safety Office and other peak bodies to develop the Risk Assessment template, and I understand that the question of electrical safety has been covered to the satisfaction of these bodies. However, I have asked my Department to review the issue that you have raised in regards to the Risk Assessment template with these regulatory bodies to maximise the safety of all individuals working under the Program.

As I have said consistently, while the Program has strong safety requirements, I will not hesitate to boost these requirements should it be required. As you know, on 1 November 2009 I announced key safety protections with application from 2 November 2009. These protections include:

a ban on metal fasteners for foil insulation such as metal staples or nails;

- mandatory installation of covers over downlights and other ceiling appliances, which have always been commonly used but are not compulsory under Australian Standards; and
- a targeted electrical safety inspection program of Queensland homes with foil insulation installed under the Program, starting at 10 per cent of installations, with the potential to adjust upwards as results are analysed.

My Department has also worked with the Construction and Property Services Industry Skills Council (CPSISC) and the ElectroComms and Energy Utilities Industry Skills Council (EE-Oz) to develop a strengthened training package for insulation installers.

Furthermore, on 17 December 2009, I announced that every person installing insulation under the Australian Government's Home Insulation Program will soon be required to meet boosted training or minimum skill requirements, with a deadline of 12 February 2010 for the provision of evidence that every employee fulfils these requirements.

I appreciate your concerns and suggestions for enhanced safety requirements for people installing beiling insulation.

Yours sincerely

Peter Garrett

Subject: Confirmation

Date: Thursday, 18 February 2010 7:57 PM

From: autoresponder@aph.gov.au

To:

Conversation: Confirmation

Thank you for your time, your comments have been successfully submitted via http://www.aph.gov.au

Please do not respond to this email

Comments: I have sent an email message to Parliamentary.clearanceofficer@environment.gov.au

i would like you to ensure that this email is forwarded to Peter Garrett. I look forward to his response thanks Kevin Fuller

Name: Mr Kevin Fuller

Address:

City:

State or Territory:

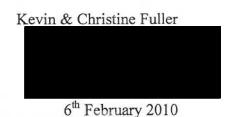
Postcode:

Country: Australia

Telephone number: Email Address:

Page 1 of 1





The Hon Kevin Rudd MP Prime Minister Parliament House Canberra ACT 2600

Re: MATTHEW JAMES FULLER 20/1/1984 to 14/10/2009

Firstly, please accept my apology for the length and size of this communication – but when you read it I hope you will understand. There is also a lot of support documentation attached in an effort to help you power through and understand the big picture, more quickly.

We are not happy with the follow through, compassion, commitment and ownership shown by your ministry – Department of the Environment, Water, Heritage and the Arts. I have personally written to Peter Garrett on two (2) occasions 6th November & 27th November (see attached #1 & #2).

He did respond and used a lot of the right words like "thorough and quick action by way of response is very important" "the Government placed a strong emphasis on safety" "I will ensure action is taken, including deregistration as appropriate, if an installer has not complied with the program" in his second response he said "again want to assure you that safety is an absolute priority for the Australian Government under the Home Insulation Program" but as far as I can see nothing actually changed. Australians are still getting killed!

The only published overnight decisive decision that I can give Peter Garrett a pat on the back for is the overnight change from\$1,600 to \$1,200 rebate. It surely would have been just as easy to publish an overnight decision that the power <u>must</u> be turned off? Even if that was only a temporary step whilst investigations and discussions continued. Even AFIA is quoted to have said on the 7th December (#4) "Mr Garrett must take immediate steps to improve the safety for both homeowners and installers". Obviously to me that means that they think not enough had been done even at that late date.

We have been very patient and very cooperative, so far. We have not gone to the media or sensationalised this problem in any way, although we have had the media chasing us a number of times.

We are proud Queenslanders and Australians. Until last Thursday I thought that we could trust in the system. Leave it to the professionals and the right outcome would happen. I have to say that has categorically NOT been the case.

Our son Matthew was killed at work on the 14th October 2009, he was only 25. He was our only child. He was electrocuted in a roof space of a house in Meadowbrook, Brisbane.

Matthew was the first person to be killed as a result of the Energy Efficiency Homes Package. I would have liked to be able to say that his death was not in vane and that he died to show a better way for YOUR Department and all other installers.

that all of this would have had some impact on your department – forced them into action. Got them to get involved, be concerned and make some obvious life saving changes.

On the 25th October, Opposition environment spokesman Greg Hunt is reported to have called on Peter Garrett "...to explain why the Government did not act after earlier warnings." (#3)

It is a matter of record (#3) that at least 4 people suffered severe injuries from foil insulation in Australia in the weeks and months leading up to Matthew's death. Back on 25th October it was stated that (#3) "Master Electricians has been calling for the removal of metal-based insulation from the program and greater training on electrical safety for installers for some time." It looks like nothing was done as a result of those injuries / warnings. Prompt and decisive action by your Government could have saved our son from being killed.

I now know that at least 4 people were killed in New Zealand in and about 2007 (#3). It is a matter of record that as a result of those deaths New Zealand <u>banned the use of metal staples</u> in Foil Insulation <u>in 2007</u>. In his speeches and references Peter Garrett (refer Hansard) always defers to ICANZ for his knowledge and guidance on insulation and for the correct methods and how to overcome any safety issues. Why then did Peter Garrett and his department <u>not take notice</u> of ICANZ information and New Zealand's stand on metal staples being banned for use in foil insulation? That could have saved Australian lives and any number of Australians from smaller injuries (near misses). Or is it that Australia wants to be so like New Zealand that we had to wait for someone to be killed before thinking about taking any action?

Matthew's death has been under investigation by Queensland WH&S and The Electrical Safety Office from the day he was killed, they have been professional and have done a great job, kept us informed and showed their support and compassion. They have also made a number of improvements and changes, as far as they can, as I understand it they do not have the jurisdiction to make some much needed improvements and changes.

Matthew was killed i	n his first	couple o	f weeks	as an	insulation	installer for	an 'a	approv	red
Insulation Installer' -		-				They a	are S	STILL	on
the approved list!					X	V.700			

I hope that you have been made aware of the 25 year old Queenslander who was killed in Milla Milla on Thursday. He was also electrocuted installing foil insulation in the roof space and pronounced dead at the scene.

The Courier Mail reported yesterday that (#5) "the company that employed the man has been immediately suspended from the program pending an investigation by Queensland Workplace Health and Safety and the Electrical Safety office." They go on to say later in the article (copy attached) "The first man to have died under the Government's program in October....his death is being investigated and the company is still operating under the program." PLEASE EXPLAIN!!!

If your Minister had taken the same decisive action in October at least TWO (2) young lives would have been saved and the main risk removed for many other Australians, both contractors and homeowners. It would also have sent an early message to the industry that YOU and YOUR government are not to be played with. Instead that department seems to continually be in the media for all the wrong reasons. When will you stop it? When will that department stand up and be counted? You need to put people's faith back into your department and your government. Keep our children SAFE!

For a moment put yourself in our position - imagine if this had happened to your son or daughter. Your daughter Jessica was also born in the same year as Matthew, so I know you may be able to imagine what we have gone through. How would you feel if it was your son or daughter that was killed or maimed for life - and the 'government' of the day did not seem to care enough? That the 'government's' inaction allowed 3 more deaths to happen. That at least two of those deaths would have been avoided if the decision was made and the

instruction given to have the power turned off.

Along with others Peter Garrett has authorised us to get FOI documents from the government, at no charge – as long as we specify which documents we want! I applied for the FOI documents on the 30th October 2009 typically they could take 30 days and maybe a further 30 days if there are multiple people involved. These documents have been promised on a couple of moving dates, but I still do not have them yet. On Friday when I followed up again to try to get the documents, I received an apology for the delay and for missing one of my communications, with the override that a decision would be made 'today', Friday 5th February and the documents sent as soon as possible. (#6)

We are committed to follow this to the end; we owe it to our son and, now, to all of the other sons who have unnecessarily have paid the ultimate price. We would much prefer that the changes are made by the right people, in a timely manner. We usually do like to work within the system. However you can probably tell that we are now getting very frustrated and very angry. I did not like to hear that another young life has been taken, I will not stand by quietly and let any more young lives be taken. I feel as guilty as I hope Peter Garrett

feels when another young life has been unnecessary taken, when prompt and decisive action should have been taken a long time ago - that young life would have been safe and still with HIS family today. We should have done something sooner. We will do something if the system does not.

have been on the list every time I have checked it. Matthew's death and Monique's injuries have been discussed in the Queensland Parliament; it has been on national TV and in all the media around the country. It has never mentioned their names, or shown pictures of the injuries, or had us or Monique telling the whole story.

On the plus side - Since his death, and as a result of the early investigation by Queensland WH&S, some prompt changes were made to the Safety Legislation in QUEENSLAND, for example.

On 25th November WH&S Qld issued an alert (#7) Insulation – installing ceiling insulation and your health and safety (copy attached)

In that document it clearly states that: -

- it is effective from 1st November 2009
- starting on page 2

Before you enter the roof cavity to start the installation:

One of the paragraph points clearly states that the power should be turned off!

- before proceeding with the installation of insulation materials (particularly foil insulation) turn off all electricity to the property at the main switchboard — there may be a number of main switches e.g. Main switches for light and power, main switch hot water, main switch or isolator for solar power.

These switches do not turn off the main electrical cable supplying the switchboard

this cable may run in the ceiling space.

We do not even know for sure that the changes made by Queensland WH&S went nationwide. Why was this not made mandatory across the country? At least 2 people would still be alive today!

All of the recommendations and changes had lots of words, but obviously no impact as there have been <u>3 more deaths of young people installing insulation</u> in roofs in Qld and NSW. We have no idea how many other injuries have occurred but we do get to hear of the deaths. That is ONE DEATH PER MONTH since Matthew was killed. That is NOT acceptable. It is NOT acceptable that YOUR Minister and his department don't act, don't make the required changes, don't seem to care?

What will YOU do to help kick start this? I must have some confidence that someone will fast track the correct and appropriate changes to stop more people being injured or killed.

I look forward to YOUR prompt response to this serious matter.

I can be contacted by mail etc at the above address, or after 6pm on work hours on or through switch at or even on email at

I am happy to meet with you at any time to discuss this further, to share with you what changes should be made and why I think these particular changes are urgently required and are currently the correct changes to be made.

Time is not on our side. We all will be judged poorly if another young life is lost unnecessarily. I am once again putting my faith in the system and YOU. Our next steps and our comfort is in your hands, don't let us down

I will give you some time to read and digest this letter and to start to get things happening, heading to a prompt solution and for the ongoing safety of our children.

But as I consider this issue so important that it MUST be solved promptly - if I do not hear anything constructive from YOU by the 18th February I fully intend to continue to follow through on this, write to anyone with a belly button. Not stop until Matthew's life is avenged, well as a father you know what I mean.

In anticipation of your prompt help and for taking this matter seriously, I thank you. I just wish that we did not need to do any of this yet. Matthew was too young with so much life ahead of him. Monique is still only a child in the working world.

Regards and Thanks

Kevin Anthony Fuller (Father)

c.c. Peter Garrett Pat Stein





Subject: Email to the Prime Minister [SEC=UNCLASSIFIED]

Date: Thursday, 11 February 2010 5:28 PM From: info@pm.gov.au <info@pm.gov.au>

To:

Conversation: Email to the Prime Minister [SEC=UNCLASSIFIED]

Thank you for your message to the Prime Minister at www.pm.gov.au.

Below is a copy for your records.

Responses prepared to your message will generally be emailed to you. If you have supplied a postal address, a response may be sent to you via Australia Post. In some cases, your message may be forwarded to other Federal Ministers for their consideration.

This is an automatically generated email. Please do not reply to this email as this address is not monitored. If you have any problems with this service please contact the Web Administrator through the site feedback service at http://www.pm.gov.au/Site_Feedback

Submitted on 11 February 2010

Title: Mr

First Name: Kevin Last Name: Fuller

Email Address:

Street Address:

Suburb/City: State: Queensland

Postcode/Zip:

Country: Australia

Subject: Matthew James Fuller Electrocution and my recent letter

Comment:

The Hon Kevin Rudd MP

Although i wrote that i would sit quiet until the 18th February I am sorely disappointed that i have not heard anything from anyone. not even confirmation that you have received and reviewed my letter. That is disappointing and not professional in my book.

Particularly with the developments, circumstances, statements made by Peter Garrett and others involved and the huge publicity over all of this since writing directly to you. it is getting all too much, too large a request to work within the system, too much to sit by when your government is slandering MY SON, to much to keep quiet when i get NO feedback or acknowledgment. Particularly when Peter Garrett continues to say things like

"it is negligent or inappropriate, slack behaviour on the part of a very tiny minority"

"there was a legal expectation that installers met safety standards and make sure they do the job properly"

"it would be unfair to blame him for the deaths of workers because he had established high safety standards"

his management and response was very poor, he took bad advice, did not listen to the right people - me included! If HE HAD LISTENED at least 2 people would still be alive today!!!

His level of High Safety Standards ignored the supplier / manufacturers guidelines for the foil insulation that my son was made to use CLEARLY states on the foil companies web site that the power must be off before entering the

roof.

Ignored the recommendations and advice of the professionals, (Electrical and building specialists)

ignored the early warning signs when people had near miss accidents.

ignored my plea that the power should be off - refused to support that one change that could have saved lives AND made it safer $\frac{1}{2}$

unless i am given some respect and a good and just reason to keep quiet by noon Friday the 12th February i will assume that you and your government do not respect us, the general public. My wife and I have a fair and just grievance and we expected that the people paid to represent us and listen to us would do just that. You can safely expect that i will react accordingly to your next move.

regards Kevin Fuller (one disappointed Australian)



PRIME MINISTER
CANBERRA

17 FEB 2010

Reference: C10/7984

Mr Kevin Fuller

Dear Mr Fuller

Thank you for taking the time to write to me at this time of grief and loss for you and your family. I appreciate your concern to ensure that what happened to your son does not happen to anyone else's child.

I read your letter with deep sorrow. I fully understand that there are no words that I can offer that will in any way ease the pain that you and your family, and Monique and her family, are feeling at this time. Please accept my deepest condolences on the loss of Matthew. No parent should ever have to bury a child.

You have raised many valid concerns about the Home Insulation Program.

Please let me outline the measures that have been taken so far.

First, and most importantly, since receiving your letter, on 9 February the Government stopped the use of foil insulation under the Program.

On 10 February, Minister Garrett announced that safety inspections would be conducted at no cost to the household on all households with foil insulation installed under the Program.

On 12 February, I'm advised further measures came into effect requiring every installer to demonstrate or undergo training, or display insulation industry experience.

Since December 1, I'm also advised it has been mandatory for all installers to conduct a formal risk assessment before proceeding to install insulation.

This followed Minister Garrett's actions in November to ban the use of metal fasteners when installing insulation, and to introduce a Name and Shame Register of companies which had been deregistered from the Program after breaking the rules.

Before the Program commenced in full, Minister Garrett and his department consulted widely with the industry and stakeholders to develop the first ever nationally accredited training program for insulation installers.

I'm advised he also made occupational health and safety training mandatory for installers – and that as part of that training, installers were explicitly warned of the dangers of live electricity connections and the need to turn off the domestic electricity supply. That message was reinforced in communications made with all installers in October and subsequent months.

In response to your comments about I am advised that the Department of the Environment, Water, Heritage and the Arts issued the company with a show cause letter concerning its registration in October 2009, but at that time the company was not suspended or de-registered. On 16 February 2010 it was removed from the list of registered providers. This means that cannot conduct any installations of any kind under the Program.

I understand that you have received documents from the Department of the Environment, Water, Heritage and the Arts in response to your Freedom of Information request from last year and have since requested additional documents. I have asked Minister Garrett to respond to you on this matter and your query regarding the matter of turning power off for insulation installations.

Matthew's death is a terrible tragedy. I expect that Workplace Health and Safety in Queensland and the Electrical Safety Office investigations will provide specific answers as to the circumstances surrounding this tragedy.

Once again, please let me offer my deepest sympathies to you and your family during this very difficult time.

Yours sincerely

Kevin Rudd



Subject: I	FW:	Issue	for	Peter	Garrett	&	Kevin	Rudd
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Date: Friday, 19 February 2010 8:49 AM

From: Kevin Fuller

To: Cc:

Conversation: Issue for Peter Garrett & Kevin Rudd

Hi Faith, can you please ensure that this email is forwarded to both Peter Garrett and Kevin Rudd.

To Prime Minister Kevin Rudd & Minister Peter Garrett

Hi Kevin,

Christine & I thank you for your response letter, received today – your reference C10/7984. I have attached an electronic copy of your letter (2 pages) so Monique and her family can also read it.

It is most unfortunate that it took so long for your government to start to take what I and a lot of others think are the necessary steps towards ensuring that other parents will not have to go through the gut wrenching pain of either burying their child or having to sit by their bedside for weeks on end, waiting for them to recover. Had Peter Garrett and his department acted more decisively, at least two people would still be alive.

However, late is better than never.

I look forward to your follow up communication(s). I hope those communications will help me better understand why the Department lacked effective and decisive management. Why the department had little effective follow through on the "expected" improvements and why the improvements were so slow to be put in place.

As a manager for many years I know that the Queensland Division of Workplace Health and Safety would never let me get away with only doing tick and flick sheets – with no other <u>effective management</u> follow up, reporting and or inspections,

checking that what I wanted was actually understood by the workers and was being done!

Have you ever looked at the tick and flick sheets? Have you looked through the development of the tick and flick sheets? Looked at the one that was in place at the start of the program? Looked at what was in place when Matthew was killed? Looked at the updated one just after Matthew was killed? Compared those to the new three (3) page one?

This new three page one is so demanding that I fear it will be ignored by all of the "new" installation companies (the ones who so badly need the discipline and the help) and I really fear that it will be treated just as a pure tick and flick sheet - given *lip service* — "a form that we must have filled in and kept for the governments record", just in case they check. I do fear that <u>it will not be taken seriously by the poorly managed companies</u> as it would take too long. It also expects too much knowledge from the person completing it. The form does require a lot of things to be checked to complete it accurately <u>and effectively</u>. How does Peter Garrett truly expect an at best semi-trained person to <u>understand and identify all of the risks</u>, make the decisions and know that ultimately the workers will be safe or not? In my opinion unless there was some chance that they WILL be INSPECTED <u>on the job</u>, a tick and flick form will never work. It will only be a prop for a poor management to say "they filled in the form and they told me it was OK!"

On a related and urgent issue. I am very concerned that Australian home owners, emergency service personnel and other tradesmen have now been put at grave risk of being caught in either a house fire, of receiving an electric shock or of being poisoned by toxic fumes as a result of the poorly managed, poorly checked and poorly installed insulation. Not only that, but as it is now very public knowledge that these risks now exist in a large number of properties I fear that insurance companies will refuse to pay out on genuine claims.

What plans have the government put in place to ensure the ongoing safety of all Australians. To also ensure that in the event that another house burns down or someone else is killed or injured as an outcome from the insulation debacle that they will be covered. That the repairs will get done, that their family will still have a roof over their head, that they will not be out of pocket and that their insurance WILL cover them.

I am interested to know what you and your government have planned for this. I await your personal reply or failing that the formal reply from your government addressing this serious concern.

As before, I can be contacted on during Queensland work hours,

after 6pm and on the weekends.

On email at

at my home address,

Regards

Kevin Fuller Concerned parent and proud Australian



Advanced insulation

Stephical distributors contact us
amos any type of application



SilverCell recommends:

- · Power to be turned off before installing the insulation
- · A 'Safety Switch' is to be installed for installers and home owners safety
- · All SilverCell products should be installed by qualified insulation installers.

Further information can be found in the following sites:

http://www.energyinstitute.com.au/home-safety/home-safety-products.aspx http://www.deir.gld.gov.au/workplace/index.htm http://www.deir.gld.gov.au/electricalsafety/law/index.htm



FREE HOME INSULATION

The Australian federal Government is investing \$4 billion in improving the energy efficiency of Australian homes through the Energy Efficient Homes Package. The Government's package is designed to reduce your homes carbon footprint by cutting energy waste which will ultimately lead to great savings on energy bills for householders. read more

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consumer

Making decisions easy

Foil insulation danger



Thinking of DIY under-floor foil insulation? Read this - it could save your life.

So far this year three people have been killed installing foil-type underfloor insulation when they've stapled the foil into power cables.

The combination of working on possibly damp ground, using a metal staple gun, and accidentally driving a staple through the insulation material into a power cable has been fatal.

Even switching off the mains power during installation may not protect you. This is because a staple driven into a power wire may not be noticed and the whole of the underfloor insulation could become live when the power is switched on - creating a lethal trap for the next person who crawls under the floor.

If you're going to install foil-type under-floor insulation, be extremely cautious about the location of electric cables. If you've got cables running on the undersides of your floor joists, have them moved to the side of the joist before you start.

Use a rubber gloved hand to operate the stapler, and have a registered electrician test to make sure the foil isn't live after you've finished.

More information

Insulation - our guide to your insulation options





Installing Under Floor Thermal Insulation – Electric Shock Hazard

[Last Updated 21 June 2007]

In 2007 three fatal accidents have occurred when homeowners stapled under floor thermal (aluminium foil) insulation material into power cables.

When stapling under floor thermal insulation it is essential to keep staples well clear of any power cables.

Damage to such a power cable may result in a fatal electric shock.

Power isolation when performing the work is encouraged. However, it should be noted that turning off the power will not necessarily eliminate the electric shock hazard as a damaged cable may liven the aluminium foil when power is turned back on.

There is also risk of an electrically initiated fire resulting from such a damaged cable.

If you have any doubts or concerns about installing this thermal insulation safely then please have the work carried out by professional installers.

A recent event has further emphasised the importance of performing pre-installation hazard assessment and subsequent isolation of potential electrical hazards.

Power cables must be identified and barriers provided as required to prevent staples piercing them when installing under floor thermal insulation.

In this recent incident, power was switched off and then the aluminium foil insulation was installed. Power was restored after the installation work was completed. A voltage check was then made between the foil and earth, no voltage was detected.

Subsequently the owner of the premises discovered that a hot-point circuit in the house had no electricity supplied to it. This was investigated by the homeowner who found that the fuse had blown. He replaced the fuse and it immediately blew again. On investigation a TPS power cable was found to have been stapled.

While switching off the power supply has prevented a fatal accident, the electrical installation was left with a damaged power cable in contact with the aluminium foil – an accident waiting to happen.

The accidentally stapled cable created a direct path for the electricity through the staple onto the foil. When the power was switched on, the fuse blew. Tests were carried out for voltages on the aluminium foil. No voltages were detected due to the fact that the blown fuse had isolated the power from the circuit concerned.

The above highlights the need for checking the state of the circuit protection devices on the switchboard when the power is restored. If any changes are observed such as a circuit breaker tripping or a fuse blowing then an electrician should be engaged to investigate and carry out any repairs if required.

There is still a possibility of damage to the cable by a staple and the protective devices not operating (fault current being not enough to activate the protection); this will result in the aluminium foil becoming live when the power is restored. For this reason it is vital that checks be carried out on the aluminium foil for voltages in all cases.

Prevention is the Key

- Performing the pre-installation hazard assessment is critical, as is;
- The subsequent isolation of electrical hazards prior to the installation work starting, and
- Safety checks being performed at the conclusion of the installation.

Plastic staples should be used whenever possible as this would alleviate the risk of electric shock to the installer.

As an outcome the above actions should play a part in preventing future accidents when installing under floor insulation.

Any questions or further advise, please don't hesitate to contact us or Free phone 0508 377 4636.

http://www.energysafety/govt.nz/templates/Page___27749.aspx

11/02/2010



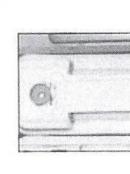
Department of the Environment, Water, Heritage and the Arts

Please see photographs below for an example of the types, position and condition of cabling to help identify electrical hazards when completing the risk assessment template.

Porcelain Fuse

Thermoplastic Sheathed Wiring

Tough Rubber Shielded (TRS)



Split Steel Conduit





Disconnected Wiring



Unenclosed Connections





Exposed Connections



Damaged cable Sheaths







- if specialist expertise is required regarding electrical risks — advise the owner/occupier and recommend that a licensed electrical contractor be engaged to provide advice and assist in implementing any control measures to address the risks
- before proceeding with the installation of insulation materials (particularly foil insulation) turn off all electricity to the property at the main switchboard there may be a number of main switches e.g. Main switches for light and power, main switch hot water, main switch or isolator for solar power.

These switches do not turn off the main electrical cable supplying the switchboard — this cable may run in the ceiling space.

- ensure that you know:
 - how to safely access the roof cavity
 - how to prevent or (if this is not possible) minimise any associated risks
 - where and how to store the insulation,
 - what to do in an emergency
 - if you have any relevant allergies.
- ensure you are properly hydrated to manage dehydration and heat-related illnesses
- learn the safe work procedures for removing and installing insulation
- tell others who are not involved in the work to keep away from the stored insulation and from any areas immediately below where you will be working
- check that your tools and PPE are adequate and maintained, and
- only start work once all the above is complete, and you are satisfied that the system of work and working environment is safe and without risk to health.

During installation

From 1 November 2009, metal or other conductive fasteners are not to be used when installing ceiling insulation and the installation of ceiling insulation must comply with clause 4.5.2.3 of the Wiring Rules (AS/NZS 3000:2007) – see Electrical Safety (Installation of Ceiling Insulation) Notice 2009

While installing the insulation:

- identify and mark the position of all electrical cables in the work area and ensure that all insulation fixing points are well clear of electrical cables and equipment, and make sure you do not damage any electrical cables or electrical equipment while trimming, cutting or fixing insulation
- do not place material over recessed lights and associated equipment such as transformers (in particular halogen downlights)
- maintain minimum required clearances for insulation materials around electrical equipment (e.g. downlights) and fit fireresistant barriers where required as specified in clause 4.5.2.3 of the Wiring Rules (AS/NZS 3000:2007)

Default clearances are 50mm from incandescent and 200mm from halogen downlights including 50mm clearance for any associated transformer – unless the downlight is designed for the application or is installed within a suitable fire-resistant enclosure.

- follow the safe work procedures for removing and installing insulation
- keep in constant contact with someone
- wear appropriate, maintained and correctly-fitted PPE, including:
 - a half-face (class P1 or P2) disposable particulate respirator, in accordance with AS/NZS 1715
 - a head-covering and goggles, to avoid eye irritation
 - long-sleeved, loose-fitting clothing and gloves, to minimise skin contact
 - appropriate footwear.
- handle the insulation with care and minimise the release of fibres or dust
- step on roof beams not the ceiling material, and
- keep your work areas clean and clear of fibres and dust, by regularly using an industrial vacuum cleaner fitted with highefficiency particulate filters, and place waste in plastic bags capable of containing dust.



Australian Government

Department of the Environment, Water, Heritage and the Arts

	MANDATORY RISK ASSES	
WORK ORDER NO:	DATE:	JOB ADDRESS:
INSTALLER NAME:	SUPI	ERVISOR NAME & TEL:
Hazard / Risk	Identified	Actions taken to reduce risk
Electrical Electrical circuits present in ceiling space	Y N	Turn off circuits not required to undertake work. Do NOT use metal or other conductive fasteners. Consider use of battery powered lighting. Consider other actions you can take to reduce the risk.
Electrical Are there porcelain fuses in the fuse box?	Y N	If yes, do not enter the roof cavity and ask the home owner to call a registered electrician to inspect fuses and make them safe for the installation of insulation. Consider other actions you can take to reduce the risk.
Electrical What type of cabling is present?	Y N Thermoplastic sheathing	If yes, check that there is no damage such as from vermin or from embrittlement and cracking. Proceed where no damage pertains. Do NOT use metal or other conductive fasteners. Ensure cabling is not near fasteners.
Electrical What type of cabling is present?	Obsolete wiring systems Y N Split steel conduit Y N Tough rubber sheathed Y N Other obsolete system	If yes, leave the roof cavity and ask the home owner to call a registered electrician to inspect the cabling and make it safe for the installation of insulation.
Electrical Where are the cables?	Y N Cables are in continuous contact with a surface laying on ceiling lining or fixed to structural members? Y N Cables are in a position where they cannot be partially or fully surrounded by thermal insulation?	If yes, proceed where no damage pertains. Do NOT use metal or other conductive fasteners. Ensure cabling is not near fasteners. Consider use of battery powered lighting.
Electrical	Y N Cables will have to be repositioned to allow insulation to be installed?	If yes, leave the roof cavity and ask the home owner to call a registered electrician to inspect the cabling and make it safe for the installation of insulation.

Where are the cables?

N Cables are likely to be adversely affected by the installation of thermal insulation?

Electrical What is the condition of the cables?

N Unenclosed connections Y

N Damaged cable sheaths Y

N Disconnected cabling Y

N Exposed conductors or terminations

If yes, leave the roof cavity and ask the home owner to call a registered electrician to inspect the cabling and make it safe for the installation of insulation.

Electrical Are there downlights and transformers / ceiling exhaust fans and fire flues?	Y N	If yes, do not place insulation material over any of these items. Install suitable fire-resistant barrier around these items. If items are connected to suspected damaged cables ask the home owner to call registered electrician to inspect items and make safe for the installation of insulation. Consider other actions.
Electrical Are there ceiling exhaust fans?	Y N	Ensure insulation is installed in accordance with the instructions of the exhaust fan manufacturer. Consider other actions you can take to reduce the risk.
Electrical Are there ceiling fire flues?	Y N	Ensure insulation is installed in accordance with the instructions of the fire flue manufacturer. Consider other actions you can take to reduce the risk.
Working at heights Are you working on a high, sloping roof?	Y N	If yes, wear and use a fall restraint system. Secure ladders Consider working in pairs. Know your emergency exit procedures. Consider other actions you can take to reduce the risk.
Exposure to synthetic mineral fibres. Is there any synthetic mineral fibre (SMF) in the roof cavity?	Y N	If yes, ensure that any exposure to SMF products will meet the standards outlined in the National Code of Practice for the Safe Use of Synthetic Mineral Fibres. Consider other actions you can take to reduce the risk.
Asbestos Are you working in an older home, built between 1945 and 1980? Does the householder know if there is asbestos lagging or fibrous cladding material in the roof cavity?	Y N Y N	If loose asbestos is suspected, leave the roof cavity and inform the home owner and your supervisor. Suspect material will need to be tested and cleared as not asbestos or removed if confirmed as asbestos prior to work proceeding. Consider other actions you can take to reduce the risk.
Heat Is it hot? Are you working during summer? Is the climate tropical?	Y N Y N Y N	If yes to any or all the risks, restrict work during the hot part of the day. Consider opening roof cavity by lifting tiles to increase air flow. Plan regular breaks out of the roof cavity. Installers may wish to use "camel back packs" or water bottles. Consider other actions you can take to reduce the risk.
Bio hazards Are there bio hazards such as snakes, spiders, birds, possums?	Y N	If yes, refer to homeowner for pest control. Consider wearing suitable protective clothing (PPE) including appropriate footwear, long-sleeve, loose-fitting clothing and gloves. Consider other actions you can take to reduce the risk.
Structural problems Are there suspected problems with the structural integrity of the building?	Y N	If yes, do not enter the roof cavity. Ask home owner if they are aware of there being white ants or other structural issues in the roof cavity before working there. Step on roof beams – not the ceiling material.

Disclaimer –this publication may contain occupational health and safety information. To ensure you comply with your legal obligations, you must refer to the appropriate legislation. This publication does not represent a comprehensive statement of your obligations or the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

2			Consider other actions you can take to reduce the risk.
Access Can untrained persons access the roof cavity during work?	Υ	N	Consider use of signposting / barricading. Establish safe work method statement including exit arrangements. All persons entering the cavity during install must be trained or supervised by a trained individual. Consider other actions you can take to reduce the risk.
Other Are there any other hazards / risks? List other hazards / risk identified:	Υ	N	List actions taken:

Signature :	
Name: Position :	
Company:	

For further information relevant to you state or territory obligations go to:

ACT: ACT OH&S, (02) 6205 0333.

About the new legislation: http://www.worksafety.act.gov.au/about-new-legislation

Home page: www.worksafety.act.gov.au

NSW: WorkCover NSW, 131050.

How to install insulation: http://www.workcover.nsw.gov.au/Publications/Industry/Construction/Pages/howtoinstallceilinginsulation.aspx Safe Use of Synthetic Mineral Fibres:

http://www.workcover.nsw.gov.au/Publications/LawAndPolicy/CodesofPractice/Pages/synthetic.aspx

Home page: www.workcover.nsw.gov.au

NT: NT WorkSafe, 1800 019 115.

Home page: www.nt.gov.au/deet/worksafe

Safety alerts: http://www.worksafe.nt.gov.au/corporate/safety_alerts_2009.shtml FAQs: http://www.worksafe.nt.gov.au/corporate/publications/pub0005.pdf

QLD: Department of Employment & Industrial Relations Workplace Health & Safety, 1300 369 915

Installing ceiling insulation and your health and safety:

http://www.deir.qld.gov.au/workplace/publications/alerts/insulation_install/index.htm

Home page: www.deir.qld.gov.au/workplace/index.htm

SA: SafeWork SA, 1300 365 255. Home page: www.safework.sa.gov.au

User friendly Guide to OHWS Act: www.safework.sa.gov.au/uploaded_files/ohsregulations.pdf

TAS: WorkCover Tasmania, 1300 366 322.

Home page: www.workcover.tas.gov.au

A Guide to the Workplace Health and Safety Legislation: http://www.wst.tas.gov.au/__data/assets/pdf_file/0009/76896/GB133.pdf

Vic: WorkSafe Victoria, 1800 136 089.

Laws and Regulations: http://www.workcover.vic.gov.au/wps/wcm/connect/WorkSafe/Home/Laws+and+Regulations/

Home page: www.workcover.vic.gov.au

WA: WorkSafe WA, 1300 307 877.

Home page: www.worksafe.wa.gov.au

Legislation: http://www.slp.wa.gov.au/legislation/agency.nsf/docep_menu.htmlx&category=4

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Roofing inspectors were not trained

not effective - shows the checks and against abuse – which was often still

It was Garrett, however, who had difficulty seeing the outcome as his

consultative groups, reassessments, explanation was lost in a torrent of

At one stage he warned the

verbal sludge about meetings,

balances were not adequate.

A FEDERAL Government-employed contractor paid to inspect roof insulation installations had no safety training and says up to 50 per cent of the jobs he checked were faulty.

After just a dozen questions

Many acronyms here, Mr Speaker.

Earlier it was difficult for him to Parliament of the jargon to come: forms, guidelines and standards.

relate the well-meaning policy

intention with the sometimes

disastrous outcomes

popular and mostly successful, was not It was a cynical way to manipulate

for the job and his employer did not "We were given a booklet and told what to look out for, but there was no have a background in insulation.

Of the homes he inspected, 40 per been found to be a potential electrocent had foil insulation, which has now electrical safety training," he said. cution risk

"About 40 to 50 per cent of all the homes we checked had something wrong with them," he said.

told the homeowner what the problem "We did a report, took photographs, was – then it was up to the homeowner to get the installer back to fix it."

The man said that he and 12 other ment pulled the plug on the random ment Minister Peter Garrett said the workers were laid off after the Governinspections. A spokesman for Environcontract for the first round of inspections had concluded

Paddy Hintz

10 The Courier-Mail Thursday, February 11, 2010

have a program that delivers occurred, Garrett said: "My

issue extended to informing the public The Minister arrived five minutes late (including a few repeated efforts) and The Government spinning on this and drowned questioners in blather. Garrett news conference at 1.40pm. 15 minutes, Garrett excused himself A notice went out at 1.35pm for a and scurried into Question Time.

as a sub-contractor to a south Brisbane He said there was no formal training The worker, who did not want to be named, said he had installed insulation for a month before applying for the job firm which had won a Federal Government contract to check installations.

backdown on a scheme that, while

properly administered

the announcement of a major

responsibility for the deaths that have responsibility is to make sure that we

When asked if he felt any personal