

FINDINGS AND RECOMMENDATIONS

COURT DETAILS

Court Queanbeyan Coroner's Court of NSW
Case number 2014/363098

PROCEEDINGS

Inquest into the death of Inquiry into the fire at **55 Surveyor Street, QUEANBEYAN NSW 2620**

Hearing dates
24 May 2016
26 May 2016
27 May 2016
14 December 2016
15 December 2016
16 December 2016
26 April 2017
30 June 2017

Date of findings 30 June 2017
Place of findings Queanbeyan Coroner's Court, 2 Farrer PI, QUEANBEYAN NSW 2620
Findings of Coroner Michael Antrum

FINDINGS

As per attached document

RECOMMENDATIONS

As per attached document

REPRESENTATION

Assisting the coroner Sgt Paul Bush - NSW Police Force
Representing the family N/A
Other parties Mr Bowdi Latham and Family - Mr Joseph SC instructed by Stuart Lawyers;
Mr David Williams (obo NRMA) - Mr Morris SC instructed by Curwood Lawyers
ELGAS Limited - Mr Glascott instructed by Mills Oakley Lawyers (ACT)
Oz Property Real Estate - Mr Doig instructed by AC Lawyers

REASONS FOR FINDINGS

As per attached document

SIGNATURE

Signature

A handwritten signature in black ink, appearing to read 'Michael Antrum', written in a cursive style.

Name

Michael Antrum

Capacity

Coroner

Date

3 July 2017

Queanbeyan Local Court

Coronial Jurisdiction

Inquiry into explosion at 55 Surveyor St, Queanbeyan
established pursuant to s30 Coroners Act 2009

Findings and Recommendations - 30 June 2017

Interested Parties

Mr Bowdi Latham and Family: Mr Joseph SC instructed by Stuart Lawyers

Mr David Williams (obo NRMA): Mr Morris SC instructed by Curwood Lawyers

ELGAS Ltd: Mr Glascott instructed by Mills Oakley Lawyers (ACT)

Oz Property Real Estate: Mr Doig instructed by AC Lawyers

Coronial Advocate: SGT Paul Bush - NSW Police Force

Coroner: Michael Antrum

Introduction

On 4 December 2014 Mr Bowdi Latham arrived home from work around 7pm. After eating dinner and watching a movie in the main house at 55 Surveyor Street in Queanbeyan he retired to the granny flat at the rear of the home where his bedroom was. He put a DVD into his Xbox and has then used a cigarette lighter to light a cigarette or bong while lying on his bed.

The ignition of the lighter has caused an explosion in the room and Mr Latham was seriously burnt as a result. Mr Latham suffered 75% total body surface area burns to both legs, both arms, chest, back and face, and he has suffered permanent scarring and other disabilities as a result.

Investigations have identified that liquid petroleum gas had pooled in the room having been emitted from an open gas pipe into that space, and this has exploded on the ignition of the cigarette lighter by Mr Latham.

The Inquiry

This inquiry has been conducted to pursuant to s30 of the *Coroners Act 2009* (the Act):

30 Inquiries concerning fires and explosions

(1) A coroner has jurisdiction to hold an inquiry concerning the cause and origin of a fire or explosion if the coroner is satisfied that the fire or explosion has destroyed or damaged any property within the State.

This is not the wide power that informed the predecessor s15 of the 1980 Act. The former inquiries into “circumstances” were regularly long and open-ended investigations, meaning that findings were often made long after the fire or explosion. In 2003 the Act was amended to narrow such inquiries to the “cause and origin” of a fire or explosion, unless the State Coroner directed otherwise. There has been no such direction with respect to this explosion.

Proper focus

The Coronial Advocate’s submissions dated 28 April 2017 provide a useful definition of “cause” and “origin”, which have plain English meanings, and also citing *March v E&MH Stramere* (1991) 171 CLR 506 as authority for the importance of limiting an Inquiry to its s30 focus:

...the application of the test will obviously depend on the circumstances of the case and, in the context of a coronial inquiry, it may be influenced by the limited scope of the inquiry which....does not extend to the resolution of collateral issues relating to compensation or the attribution of blame.

A draft issues list was distributed at the Directions Hearing on 18 December 2015 which included installation of the LPG bottles, the pressure test conducted, certification of the installation, operability of any equipment used, whether or not any exposed pipe was observed in the flat occupied by Mr Bowdi Latham, and issues around why Mr Latham did not smell the gas that had been emitted into his room.

Mr Joseph SC, counsel for Mr Latham, submitted that the Coroner should make a recommendation that the Department of Fair Trading consider disciplinary action against Mr Haas and Mr Williams. The role of the Coroner is clearly set out at s30 of the Act. These coronial proceedings are not, and should not be used as a fishing expedition for civil or other proceedings. Neither are these proceedings a disciplinary tribunal, or some precursor to such a tribunal. The purpose of these proceedings is to determine the cause and origin of the explosion, and the Court will not be diverted from that task.

There is nothing to fetter the discretion of the regulators to commence any action and it is unnecessary for this Court to recommend it. The Department of Fair Trading will receive a copy of these findings and recommendations.

Background

The Coronial Advocate, SGT Paul Bush submitted this background after the initial investigations were concluded:

55 Surveyor Street Queanbeyan is a two-storey brick residence with a detached workshop and flat/granny flat. John Brown purchased the property in 2011 and used it as a residence for 12 months. Mr Brown relocated for work and the property was then leased through OZ Property Real Estate to a long term tenant. This tenant occupied the property for two years.

An inspection of the property was conducted in April 2014 which showed the tenant had undertaken some unauthorised building works including walls in the flat area which divided the area into two rooms. The premises appeared to have more people residing there than the lease allowed. The tenant was asked to fix the problems and leave the premises. In June 2014 the tenants had left the premises and the owner then needed to spend some time repairing the property to be ready for lease.

In the granny flat was a gas heater that was connected to a liquid petroleum gas (LPG) bottle that was installed on the outside of the premises. The owner describes this heater as being attached by way of bayonet fitting to the gas line. The only problem identified with this heater was that it had to be lit by hand.

The property was placed back on the market for rent through Oz Property and a lease was signed with Samantha McKittrick, Bowdi Latham, Trae Latham and Joel Carney with them moving into the property on 23 November 2014. Bowdi Latham had moved into the detached granny flat.

A problem was detected with no gas available in the premises which was reported to the managing agent. Andrew Haas from Oz Property was contacted and in turn arrangements were made with Elgas for the supply of new LPG bottles as the current one at the premises was not able to be used. The change of bottle type meant that a new regulator for the premises needed to be installed. Elgas recommended the business of Anything Goes Plumbing.

David Williams the owner of Anything Goes Plumbing has attended 55 Surveyor Street on 26 November 2014 and installed and tested a regulator and fittings (pigtails) for two new LPG bottles (45 kg capacity). He completed a compliance plate for the installation and paperwork. No access was available to the premises to check any appliances connected to the gas supply lines. No bottles were connected at this time.

About 10:30am on 4 December 2014 Duncan Egan attended 55 Surveyor Street. Mr Egan is an employee of Elgas and is employed as a cylinder delivery driver. He delivered, installed and checked the connections for 2 x 45 kg LPG bottles. Both gas bottles were opened by the valves to check the connections but were then closed by Mr Egan.

About 1pm Joel Carney has returned home and noticed that the new gas bottles had been installed. He has then turned the left-hand bottle on and it did not sound like there was gas and he then turned the bottle (sic – selector) over to the right hand side bottle and the same has happened. Joel has then switched over to the left-hand side bottle and has heard a slight rush of gas. Joel Carney has then checked the stove in the upstairs area of the house and noticed the cooktop would start, but the

flames were quite low even with them set on high. He has turned the grill on and noticed it made a popping sound. It sounded to him that it was not getting enough gas.

About 4pm Samantha McKittrick attended Oz Property to pay the rent and informed them the grill was not working, the staff member wrote this down. Arrangements were to be made to have this looked at.

Bowdi Latham has arrived home from work about 7pm and collected some clothes from the granny flat and return to the main house to have a shower and change. He has then eaten dinner and watched a movie.

About 10pm Bowdi has returned to the granny flat and has put a DVD on his Xbox and that is when he used a cigarette lighter to light a cigarette or similar. This has caused an explosion of the free LPG in the room which created an explosion and fire. Bailey has been seriously burnt and has run out onto the lawn area where the other residents have tried to help him and have called emergency services. Bowdi subsequently suffered 75% total body surface area burns to his legs, both arms, chest, back and face. He will have lifelong scarring as a result of this incident.

First response

Detective Senior Constable Warren Gruber was the officer in charge of the investigation. His statement is within the Brief submitted in this matter. The explosion at 55 Surveyor Street occurred at approximately 10pm on 4 December 2014, and at 11:30pm on the same date Detective Gruber attended the premises. He observed that the granny flat had damage to the roof and glass sliding door, with fire damage to the interior. He observed at that time an open ended copper pipe adjacent to the sliding door on the interior of the flat. The flat consisted of a glass door with a fixed glass panel. There was a sliding screen door. It had brick walls, exposed sarking under a tin roof, two fluorescent light fittings, green carpet, an aluminium fixed window, and curtains with tracks and pull cords.

Mr Latham told Detective Gruber that he could not smell anything in the room when he entered the granny flat on that date. He remembers a flash, the room being on fire, and then running outside and being assisted by Trae, Joel, Nikhil and Samantha. Mr Latham was unable to recall any sort of plumbing, piping or heating device in the room.

Mr Garry Dick is a firefighter and is employed by Fire and Rescue New South Wales. He has 19 years of experience as a firefighter. On the evening of 4 December 2014 he attended 55 Surveyor Street Queanbeyan after the explosion. He immediately shut off the gas and isolated it. He also entered the granny flat and shut off the electricity. He observed that the bed, the bed head and covers were severely scorched, and that some loose items and boxes to the right-hand side of the door adjacent to the gas outlet were also scorched. He conducted some atmospheric monitoring for gas which indicated that there were no dangerous levels.

Mr Dick observed a cigarette lighter on the floor next to the bed, and that a television remote control and game controller were melted as a result of extreme heat. Boxes and items next to the gas pipe were heavily scorched and the carpet at the piping outlet was burnt. He observed that there was no self-sealing mechanism of the gas pipe. He observed the side of the room that was

more heavily burnt was in a general line with the gas piping outlet. It appeared to him that no windows were open prior to the explosion.

Mr Dick formed the opinion that LPG had been released into the structure that afternoon creating a flammable atmosphere, and that a gas explosion occurred. Mr Dick believes that the gas explosion extinguished the majority of the residual burning, leaving minor smouldering of loose items. His opinion is that the ignition source of the explosion was the cigarette lighter which would be consistent with Mr Latham's recounting of his actions just prior to the explosion.

Cause and origin

The cause and origin of the fire are established beyond doubt. The cause of the fire was the ignition of the pooled liquid petroleum gas in the room occupied by Mr Bowdi Latham. The gas that had pooled in that room had been emitted from the open gas pipe that was situated on an interior wall of that room, and the gas that was emitted came from the LPG tanks that were delivered to the property by Elgas. Those facts are not in dispute, and are not controversial.

The two bottles delivered to the property by Elgas each contained a gas weight of 45 kg. In expert evidence before the Inquiry the entire weight of a full 45 kg gas cylinder is 83.2 kg when allowing for the weight of the cylinder and associated mechanisms. The left hand side cylinder at 55 Surveyor Street weighed a total of 68 kg. This gas bottle is believed to be the gas bottle that was turned on by Joel Carney at around 1pm on the day of the explosion.

The total amount of gas used by the tenants (or which was emitted as a result of the open pipe) between 1pm and the time of the explosion was 15.2 kg. Such an amount is of course way in excess of what might be considered to be normal usage, particularly in circumstances where the tenants do not appear to have used any appliances on that afternoon. The right-hand side gas bottle weighed a total of 82.5 kg and therefore only 700 g of gas had been expelled from that bottle. This amount may be explained as being an amount used in the fitting of the bottles or a shortfall on refill.

There is no doubt that the liquid petroleum gas that escaped from the open line into the granny flat and which ultimately caused the explosion was gas discharged from the cylinders supplied by Elgas.

Odorant fade

An early consideration for the investigation was whether or not Mr Latham was aware of escaping gas in the room. It is evident that he was not up until the time of the explosion. Evidence before this inquiry is that liquid petroleum gas has an odourant added to it so that it is perceptible as a smell to people. Mr Steve Reynolds, Safety Manager for Elgas Ltd says that the LPG used by Elgas is odourised with Ethyl Mercaptan at Port Botany prior to shipping to the depots.

One concern was that there may have been what is described in the gas industry as odourant fade, however there was no evidence to suggest that this had occurred with respect to the gas supplied to 55 Surveyor Street.

Senior Constable Keith Crumpton was the forensic investigator of the potential crime scene for the NSWPF. He examined the bottles after the explosion and was able to smell the gas at the end of the open pipe when his colleague turned the gas on.

What is more likely is that Mr Latham did not smell the gas as a result of either one or two factors acting in combination. Firstly, liquid petroleum gas is heavier than air and so it sinks. In this case, it is likely that the pool of liquid petroleum gas in the room was below the level of the bed, or at least certainly below Mr Latham's range of smell as he entered the room in a standing position. Secondly, it is possible that Mr Latham's exposure to chemicals in his line of work has desensitised his sense of smell such that he was less likely than another person to perceive the gas odour, and that that sense was further blunted by his smoking habit.

Commencing the tenancy

During the week prior to 22 November 2014, Samantha McKittrick (mother of Bowdi Latham), Trae Latham (older brother of Bowdi Latham), Bowdi Latham and Joel Carney (partner of Trae Latham) attended the Oz Property Real Estate agency in Queanbeyan and signed a 12 month lease for the property at 55 Surveyor Street Queanbeyan. On 22 and 23 November they moved all of their belongings to that address and commenced residing there on 23 November 2014.

Prior to moving in to the premises they had inspected the property and Joel went through the granny flat when it was empty. He did not notice that there was a gas copper pipe in the room, and was not aware that gas was supplied to the room. No gas appliance was in the room.

One suggestion in later evidence is that the former tenants had simply removed the gas heater. Suggestions that there was a bayonet fitting proved to be false. The resulting configuration meant that there was no stop or seal at the end of the pipe to prevent gas discharging into the room.

Problems with gas supply

A few days after the family had moved in to the premises Joel discovered that there was no gas to the gas cooktop. The difficulties were communicated to Oz Property on 25 November 2014 and the agency made a number of subsequent enquiries to assist the tenants in establishing a reliable gas supply.

Mr Carney saw a large BP gas bottle on the western side of the house. Further enquiries by Joel revealed that BP did not service that particular type and size of gas bottle any more. Joel made further enquiries with Oz Property who then arranged for a gasfitter, Mr David Williams from Anything Goes plumbing to replace and certify the connections suitable for LPG bottles to be delivered and attached to the gas installation.

An Elgas employee, Ms Jenny Walker suggested Mr Williams to Oz Property. In evidence, Ms Walker said that the suggestion did not amount to a recommendation.

On 28 November 2014 Joel received a text message from Oz Property stating "Joel, the gas technician replaced all connections (start of the week). You need to ring Elgas 131161 for account under your name and they will supply gas." A further text message was received from Oz Property

stating "Joel, if any problems speak with Jenny Walker from Elgas, open till 5:30pm. Cheers OZ PPTY".

Ms Samantha McKittrick was unaware that there was a gas pipe in the granny flat area, and was also unaware that any gas was supplied to that room. She did not observe any gas appliance in that room during the inspection. It was Ms McKittrick who attended Oz Property Real Estate and advised that there was no gas to the premises, and they were unable to get a gas company to service the existing gas bottle.

She says that Mr Andreas Haas, director/licensee and principal of Oz Property Real Estate in Queanbeyan, contacted Elgas, and a gasfitter to have the gas installed. Ms McKittrick said that it was Mr Haas who made arrangements for the plumber to attend the property and conduct the works and that Joel followed up on those arrangements. Ms McKittrick started an account with Elgas on 1 or 2 December 2014 so that gas bottles could be delivered. She paid a start-up fee and a monthly rental fee.

Mr Haas sent an email to Mr Williams the gasfitter on 25 November 2014:

Hi David with invoicing, send it to J&C care of Oz Property at the address below. The tenant will be home, will be downstairs. Knock loudly just in case.

This would suggest that Mr Haas certainly expected that Mr Williams would make contact with the tenant before commencing work. It also indicates that Mr Haas had been advised that somebody would be home.

The officer in charge took statements from Mr Bowdi Latham, Mr Trae Latham, Mr Joel Carney, Ms Samantha McKittrick, and Mr Nikhil Prasad. Each of these persons were tenants at 55 Surveyor Street. The important conclusion from their evidence is that some or all of them were aware that there were difficulties in the gas supply, had communicated those difficulties to Oz Property Real Estate, and that none of them were aware or had identified an open gas pipe in the flat area used by Bowdi Latham. None of them had any reason to be concerned about the possibility of a gas explosion or needed to take any further steps other than what they had communicated to Oz Property, and to Elgas to address the issue of a proper and safe gas supply to those premises.

Joel's evidence

On 4 December 2014 Joel returned home and noticed that two tall Elgas gas cylinders had been delivered. Joel says that he turned the left hand side gas cylinder on and didn't hear the gas bottle prime as he was familiar with the gas barbecue bottle, so he turned the switch over to the right-hand bottle and similarly, he could not hear it prime. Joel turned the switch back to the left-hand bottle and turned the cylinder on and heard a slight rush of gas.

Joel then went and checked the stove in the upstairs area of the house and he noticed that the gas cooktop would start but the flames were quite low on a couple of the burners, even when the knobs were turned on to full. He turned the grill on and noticed that when he lit the gas it would make a popping sound as if it wasn't receiving enough gas. Joel formed the view that the gas appliances were either not receiving enough gas or were faulty. He decided to take those issues up with the real estate agent.

It was later that evening after Mr Latham had returned to the granny flat that Joel noticed that Bowdi's television was on and he could see the TV flickering through the sliding door. As he went to re-enter the main house he heard the explosion and saw flames coming through the roof of the granny flat. He saw the steel roofing peeled back and observed that the whole flat appeared to be lit up with flames. Those flames quickly receded, and he saw Bowdi run out of the flat and drop onto the grass. Joel and Trae used the garden hose to pour water onto Mr Latham's body, acting quickly and effectively in very difficult and distressing circumstances.

Trae's evidence

Mr Trae Latham heard a loud explosion on 4 December. He ran outside and saw a really bright flash coming out of the sliding door area of the granny flat and he ran to that flat and opened the glass sliding door, noting that the window pane to the right had been blown out.

Mr Trae Latham saw a copper pipe on the right-hand side of the glass doorway and noticed that there was a flame coming out of the end of the pipe. He said that the flame was about 50 cm to 100 cm in length and it was moving up and down. Mr Trae Latham said to Joel "it's fucking gas, turn the gas off." Trae also saw that the curtains, the chest of drawers, the bedside table closest to the door, the mattress and the bed head were on fire. Boxes that had been moved from the eastern wall to the floor were also on fire, as was the office chair.

Nikhil's evidence

On 4 December 2014 Mr Nikhil Prasad (partner of Ms McKittrick) was at the house at 55 Surveyor Street as he was unwell and did not attend work on that date. He observed that an employee of Elgas arrived and fitted two gas bottles at the side of the house. He was aware that the gas had not been turned on. He says that he had a brief conversation with the Elgas delivery driver who told him "the gas is good to go, there are two bottles there, one of them is spare. I don't have a big enough trolley to take the old gas bottle away, someone will come and get it later."

Previous inspections

In April 2012 Mr Haas, on behalf of the owner of the property at 55 Surveyor Street, took numerous photographs of the property which included a photograph of the gas heater in the granny flat. That heater was attached to the copper pipe fitting on the eastern internal wall of the flat. Tenants moved into the property and by all accounts caused some damage to that property and made certain changes to the property which were not the subject of any approval from the agent.

On 13 August 2014 Mr Haas again attended the property and took several photographs of the damage that had been caused by the previous tenants, including a photograph of the eastern wall and carpet in the flat, and which depicted the gas outlet.

On 21 November 2014 Mr Haas and his associate Ms Mary Little attended the premises and took further photographs of the premises and the flat in anticipation of Ms McKittrick and her family taking up a new lease. Mr Haas in evidence did not recall whether the heater in the flat was there at this stage however the photographs clearly depict that there was no heater in that position. Mr Haas was unaware of what had happened to the heater and assumed that the previous tenants had taken

it. Ms Little updated the condition and inventory report for 55 Surveyor Street and crossed out the gas heater as being present in the granny flat.

The recent history of 55 Surveyor Street Queanbeyan was that the owner of that property, Mr John Brown, signed a property management agency agreement with Mr Haas' agency, Oz Property Real Estate in 2012.

In April 2012 the agency acting as agent for Mr Brown signed a tenancy agreement with Capital Formwork Pty Ltd and Katarina Castro. That lease was terminated on 12 August 2014.

Photographs were taken by Mr Haas prior to the commencement of that lease and it is noted that those photos contain a depiction of the gas heater in the flat. The heater was attached to a copper pipe fitted to the eastern internal wall of the flat.

Although there is no evidence from those former tenants, it is generally accepted that one or more of those tenants allowed the property to fall into disrepair and made certain unauthorised modifications to that flat. It is likely that at some point prior to or around the end of that tenancy a person unknown has removed the gas heater that was located in that flat by unscrewing it from the flange ending to the pipe. Despite an earlier belief that the heater had a "bayonet-type" fitting, it is clear that no such fitting was attached to this gas line, or if it was, it has also been removed. Had a bayonet end been present, it would have prevented the escape of gas into the flat.

Mr Haas attended the property on 13 August 2014 principally to take photos of the damage caused by the former tenants. Those photos included a photo of the eastern wall and carpet in that flat. Other photographs included in the tender bundle include one, that on its face, was apparently taken at 3:30pm on 3 September 2014. It shows an internal corner of the flat at which the heater was previously situated.

The new tenants including Mr Bowdi Latham signed a 52 week lease for the property on 22 November 2014. The previous day, Mr Haas in the company of his employee Mary little attended the premises and took further photographs. In his statement Mr Haas said he could not recall whether the heater was in the flat at that stage, but the photo of 3 September 2014 makes it clear that the heater was absent from its usual location at least as early as that date.

Duties of the landlord/estate agent

An estate agent assumes certain responsibilities on behalf of and with the landlord for the condition of residential premises. It is of course a legitimate expectation, and entitlement, of any tenant that leases a property pursuant to a residential tenancy agreement in New South Wales that the property will be safe for habitation.

The residential tenancy agreement entered into between the agent and the tenants is included in the tender bundle. Mr Bowdi Latham is identified as one of the tenants.

The landlord agrees, pursuant to clause 13.2 of that agreement, "to take all reasonable steps to ensure that, at the time of signing this agreement, there is no legal reason why the premises cannot be used as a residence for the term of this agreement."

At clause 18 the landlord agrees, amongst other things "to keep the residential premises in a reasonable state of repair," and "not to interfere with the supply of gas... (unless the interference is necessary to avoid danger to any person)" and "to comply with all statutory obligations relating to

the health and safety of the residential premises.”

At clause 19 of that agreement a gas leak is identified as an “urgent repair” which the tenant may attend to without prior notice to the landlord. That would be relevant but for the fact that in these circumstances I am satisfied that the tenants were unaware that there was a serious and dangerous gas leak in the flat area in which Mr Latham was living.

In evidence before this Inquiry Mr Haas conceded that he did not see the damage to the gas pipe, and indeed made no further enquiry of that fitting despite the obvious absence of the gas heater.

Mr Haas indicated that the corner was dark during his inspection and that he had not taken any means by which to illuminate that corner.

The legal and common sense obligation on a landlord and their agent to ensure that premises are fit and safe for habitation is not eliminated simply because of a temporary inability to conduct a proper examination of the premises. If there is an obstacle it should be removed. If there is darkness, means should be employed to illuminate the area. If a potentially dangerous situation is covered, it should be uncovered. If there is any doubt as to the safety of any aspect of the premises, that doubt should be eliminated through diligent enquiry and if necessary, removal or remediation of that danger.

One of the principal purposes of an inspection prior to a tenancy is to record the current state of the premises and to identify any items that require attention. At the top of any such list would be items that may present a danger to the health and safety of occupants. Utility services such as gas and electricity are clearly elements which pose significant risks to the health and safety of occupants if they are not safely installed and maintained. While it is not expected that estate agents have qualifications in gas fitting, even a cursory examination of fittings will disclose any obvious defects. The open ended gas pipe in the granny flat at 55 Surveyor Street, Queanbeyan, would have been an obvious defect had it been viewed.

Mr Haas gave evidence that in 2014 he was involved in a motor vehicle accident. In addition, his father passed away in the same year. He says that the loss of his father was very distressing to him, and that by September 2014 not only was he grieving that loss but was also suffering pain from the motor vehicle accident. He accepts that he was possibly distracted at his work and that his attention “was less than 100%”. Despite that, Mr Haas said that he thought at the time that he was capable of properly running the business and complying with the agency’s obligations. He accepted nevertheless, in evidence before this inquiry, that his mind was not “completely on the job”.

Mr Haas accepted that he didn't turn his mind to the connection this was so even though a previous condition report made it clear that there was a heater located in that part of the room. Mr Haas did indicate that with respect to gas supply to premises he does rely on gasfitters and the proper installation of the systems along with the professional supply of gas to the premises. That reliance is reasonable, however it cannot be a blanket reliance to the exclusion of conducting a sufficient inspection of fittings and connections for any obvious defect or damage. To avoid that obligation would be a fundamental breach of the agent’s duty as established under the residential tenancy agreement.

Elgas Ltd

Elgas was personally represented at the Inquiry by Ms Jenny Walker, a customer service officer with that company for 7.5 years at the time she made her statement. Also, Mr Duncan Egan was the driver of the truck that supplied the gas cylinders to the location for Elgas. Mr Egan was employed by Elgas through an employment company called Skilled Labour Hire.

I am satisfied that those two persons had the most direct dealings on behalf of Elgas with respect to the delivery of gas to the location. I did find it curious however that a more senior representative of that company was not available to assist the Inquiry with respect to Elgas procedures and operations. Having said that, it is clear that Elgas through its employees have done nothing more or less than standard practice around the delivery of cylinders. No action or omission by its representatives could have materially contributed to or prevented the explosion at 55 Surveyor Street.

Ordering delivery

Ms Walker said that she received a phone call from a person who identified himself as an occupant of 55 Surveyor Street and was seeking gas supply to that address. Ms Walker was able to determine that the existing gas bottle at that address was not compliant and that it was a bottle that belonged to another company, Origin Energy.

Ms Walker said that a few days later she received a phone call from Mr Haas from Oz Property and she advised him that the existing gas bottle and fittings were non-compliant, and that a new regulator and pigtails would need to be fitted in order for Elgas to supply exchange cylinders. While she indicated that Elgas could not nominate a gasfitter she did suggest David Williams from Anything Gas and Plumbing and provided his mobile number. Under cross-examination, Ms Walker said that she never recommended gasfitters but of Mr Williams said "we know that he is okay". She said that she suggested him because he is a reliable plumber.

On 2 December 2014 a request was made by Ms McKittrick for gas cylinders to be delivered. An order was placed by Ms Walker and those cylinders were delivered to the address on 4 December 2014 by Mr Egan.

The delivery

Mr Egan said that he collected the cylinders from the Elgas depot in Fyshwick between 7 and 7:30am on 4 December. He attended 55 Surveyor Street between 1030 and 11am on the same date and walked down the right-hand side of the house and saw the existing and non-compliant gas bottle beside the house. He observed a new gas regulator and fittings and recorded the details noted on the compliance plate in a handheld computer, called a CN50. Photographs of that machine and various display options have been provided to the Court. Mr Egan stated that he ensured that the bottles were located correctly which included ensuring that they were not near a window, not near a source of ignition, on a concrete slab, and affixed by a safety chain. He returned to the truck to get the 45 kg gas cylinders. He placed the gas cylinders on the slab attaching them up to the pigtail connections. To do this he had to remove a cap from the pigtail, screw the fittings into the pigtails and tighten them with a spanner.

He then undertook a soapy water test which he described as follows:

I turned the valves to the left-hand side and turned the left gas bottle on and sprayed the pigtail fitting at the bottle and out of courtesy I sprayed the regulator fittings as well. When I turned the gas bottle on I heard a short hissing noise. I waited for 10 to 20 seconds and no bubbles appeared, indicating that there were no leaks in that area. I didn't turn the gas off and turned the valve to the right-hand side. I repeated the test on the right-hand bottle and there were again no leaks. I ensure both gas bottles are off. I am not sure which way I left the valve toward. It is not my responsibility as a cylinder delivery driver to test the appliances, regulator or lines within the house. The reason why

we do not leave the gas bottles on is we have no knowledge of what gas appliances are on within the house etc. It is our responsibility to check the connection of the gas bottle.

He says that after that he spoke to a male occupant of the premises at the front veranda and said "your bottles and the valves are turned off, make sure you check your appliances before you turn them on." Mr Egan then continued on with other deliveries.

Attached to Mr Egan's statement are a number of business records which detail his delivery of the gas to 55 Surveyor Street. One of those documents identifies Samantha McKittrick as the customer at that address, and the compliance number 669644 and the compliance date of 26 November 2014 are noted on the data sheet. This detail is the extent of the delivery driver's obligation and he is entitled to rely on the certification which is implicit to the compliance plate.

NSW Department of Fair Trading

The regulatory oversight body is the Department of Fair Trading. That department was not represented at the Inquiry and did not play any active role. The view appeared to be that the Department would await the outcomes of this Inquiry and then consider its position. This hands off approach was heavily criticised by counsel for Mr Latham who sought to involve the Department in the proceedings. Mr Joseph SC sought to extend the duration of this Inquiry so that the Department might be persuaded to give evidence. I declined that application as I considered that the Department's contribution would not materially assist me in discharging my duty under s30 of the Act.

Belatedly, the acting manager of the Electrical and Gas Unit – Building Construction Service for the Department, Mr Matthew Myers, provided a statement. He apologised for the delay in providing the statement and indicated that there had been an oversight on his behalf. He is also authorised as an investigator for the department.

Mr Myers said that the Electrical and Gas Unit regulates both gas and electrical safety throughout New South Wales by maintaining that both gas appliances and electrical articles are certified prior to sale. Further, the unit ensures that both gas and electrical installations are carried out in accordance with relevant Australian standards and applicable legislation. The department enforces the *Gas Supply (Consumer Safety) Regulation 2012* with respect to gas safety in New South Wales. Mr Myers observed that all gas installations must be in accordance with the Australian Standard APS 5601:2004.

Mr Myers conceded that other Australian jurisdictions enforce the 2013 standard however New South Wales remains the solitary jurisdiction that enforces the 2004 standard. Mr Myers said that the main reason for that is "due to certain changes relating specifically to pipe sizing used in gas installations, which would have created an unnecessary increase in cost and burden to industry."

Another concern related to that of "alternative solutions", which would have seen the responsibility transferred away from the specialist trade of the gasfitter over to New South Wales Fair Trading as the safety regulator, to approve proposed installation work outside that of the standards, a function that New South Wales Fair Trading does not agree with."

The Coronial Advocate questions the adequacy of this response, and it does seem to raise more questions than it answers. It seems unusual, in the absence of more detail, that NSW would stand alone in not moving to adopt the newer standard.

Mr Myers said that New South Wales Fair Trading remains as "an interested party". Mr Myers also made reference to the fact that the department actively participates as a member of the Gas Technical Regulators Committee which is a non-governing committee consisting of all gas safety regulators throughout Australia.

The gasfitter

Detective Senior Constable Gruber conducted an interview with Mr David Williams on 24 March 2015 at the Queanbeyan police station. That interview is an exhibit to this Inquiry. In that interview Mr Williams described himself as a gasfitter and indicated that he had done "basically the four years at Tech and the post-trade to get the qualifications as a gasfitter at the CIT in Fyshwick." Mr Williams undertook his apprenticeship through Natural Gas Services.

Mr Williams established his company, Anything Gas and Plumbing, in 2009 or 2010. He says he has been in the trade for around 12 years.

Mr Williams was the gasfitter retained by Oz Property to install the new fittings, certify the installation and affix a compliance plate so that gas could be supplied by Elgas to 55 Surveyor Street Queanbeyan.

Referring to his work at 55 Surveyor Street, he said "basically I got a job through real estate and they had a problem with the regulators of the existing bottles or something, existing gas tank. And I just needed to make it compliant."

He said that it was an alteration rather than a reinstall. He said that the general procedures were "generally ...most likely replace the regulator, just update to something new, something that is fitted for, generally it's going to a couple of smaller tanks, the bigger ones have different regulators than the smaller ones. So I need to put two pigtails off the regulator. Basically to secure the pipe way back to the wall. The brackets on, the chain. Got to certify, plate on the wall, check for leaks, all that."

Mr Williams said that he conducted a pressure test and described it as follows "putting pressure test on it and then if it holds its fine, if it doesn't obviously there's a leak."

I note that during the interview when Mr Williams had been advised with respect to the explosion and the open gas line, he asked as to how Mr Latham was doing.

The compliance plate

Mr Williams was asked by Detective Gruber as to what a compliance plate means and Mr Williams responded "just sort of complies to the standards...Basically it just shows that it's been certified to that date and that installation should be fine and it's all sound and good to go." On being questioned as to what "sound" means he said "sound as in pipe work and all that should be fine in the house."

Mr Williams said that he was "under the impression I had a cooktop inside and on the old data plate, it had, I think it had room heater or something like that so I've circled it off as a room heater anyway because that was basically on the plate."

Mr Williams said that he observed that the pipe went back into the house and he assumed that it went to the top floor, maybe from room heater because that's what he observed on the data plate. He said that he couldn't even tell if it had three or four appliances fitted from that observation.

It is clear on this evidence that Mr Williams simply made an assumption based on what he observed on the 1985 compliance plate. Given that the date of inspection was in 2014, nearly 30 years later, that is an assumption that could not safely be made, and could only have emphasised the need for a diligent inspection of the installation.

The pressure test

On being asked how you check for leaks Mr Williams said "basically you've just got like a test point goes onto the end of the pipe. I can just tighten it on to whatever fittings needed and then you pump it up to required pressure and then just basically let it sit five minutes and if it doesn't drop, it's generally fine so."

He said that the pressure test should be up to 7 kpa but added that at that job there could have been an appliance connected inside and so generally "you don't want to pump it any higher than 3.5 kpa or so."

Mr Williams was unable to recall what particular pressure it would have been pumped up to and he kept no records of the duration of the test or the pressure to which it was tested.

His responses under cross-examination highlighted the fact that Mr Williams was unable to recall with any precision the duration of the test or the pressure tested at. Again, there are no records to assist Mr Williams' recollection.

At question 484 of the interview, Detective Gruber advised Mr Williams that there was an open pipe running into the granny flat. Mr Williams response was short – "shit".

Detective Gruber: "if you did the pressure test, would you think that an open pipe would show up on the pressure gauge?"

Williams: "yeah"

Gruber: "are you sure you pressure tested this particular line?"

Williams: "I put the gauge on it."

Mr Michael Hagstrom is a qualified gasfitter running a business called Capital Gasworks and has been working in the industry for around 15 years. He obtained his qualifications from the Canberra Institute of Technology. He provided evidence around gas installation procedure to the Inquiry.

Mr Hagstrom explained the pressure test procedure and indicated that the test is around 7 kpa which is 2.5 times the usual pressure. If there are appliances attached, he said that you would isolate those appliances so that they are not damaged during the test.

He observed that the line running to the granny flat was an old line because it was discoloured and also was a 3/8 inch pipe which is no longer standard.

He said that during the test there should be no variation in pressure. His evidence was useful with respect to the possibility of duct tape being applied to the end of the line saying that in his view that duct tape could not create a gas or airtight fitting. This would appear to marry with lay common

sense. He said that the flange observed at the end of the pipe would need something compressed hard against it before it could be gas airtight. He indicated that it would need to fit within the concave space of the flange.

Mr Hagstrom referred to the Australian Standard and noted that the test should be a minimum of five minutes.

Detective Gruber advised Mr Williams that the open line had a flange on it and that it had been unscrewed from an appliance. Mr Williams again responded "shit".

Detective Gruber asked Mr Williams whether or not his manometer was reliable. Mr Williams said "no it's pretty reliable like I've done hundreds of installations with it." He said the only issue would be flat batteries and he would replace them. He was asked whether or not on that particular day the batteries were flat and Mr Williams response was "I don't think so. I can't recall but I doubt it." This is not a confident response and the effect of a flat battery or a weak battery on the accuracy of reading was not explored in this Inquiry.

Interestingly Mr Williams referred to the position in the Australian Capital Territory where certifications on new installations are conducted in the company of an inspector.

At this point Mr Williams began considering how an open line would lead to a satisfactory test. He suggested the possibility of duct tape being placed over the end of the line. Mr Williams could recall an earlier job at which he had discovered duct tape over the end of a gas line and that the pressure test there gave a satisfactory reading. He accepted that on that particular job the pressure test was conducted at 2.75 kpa, significantly lower than even the 3.5 kpa which is one of the suggested pressures at which this installation was tested.

Even if duct tape had been placed over the end of the line that would still amount to a patent defect and one that should have been observed. Mr Williams in his interview said that the test time would have been around about five minutes although his response was not entirely certain. Det Gruber pressed him on whether he did test for five minutes on that day? Mr Williams responded "yeah it's basically, I throw it on, start packing up a bit. Write out that certificate. Come back and that's well over five minutes so."

Under cross-examination Mr Williams said that the required time was seven minutes and then later, five minutes. He also suggested at other times that the test may have taken 7 to 10 minutes at Surveyor Street.

In submissions Mr Joseph SC points to the variable responses Mr Williams gave with respect to the duration of the test and the pressure used in that test. I formed the view that Mr Williams' vacillation reflects a recollection that is based on what he thinks he would have done rather than any specific recollection of the test at that property.

Australian Standard 5601-2004 sets out the test procedure to be conducted where appliances are connected at E3.3.1. It requires, amongst other things, that all open ends are plugged and capped, all appliance valves are closed, that the consumer piping be subjected to operating pressure, that there be a suitable time for the temperature of the testing medium to stabilise, and that the installation be tested for a period of 5 minutes to ensure it is gastight.

I am not satisfied that all open ends were plugged and capped. I am satisfied that the pipe running into the granny flat was open at the time of the test.

Access to the interior of the premises

Mr Williams was asked whether he gained access to the interior of the homes on the property and he responded "but obviously on that particular day there was no one home so I couldn't gain access to the property and just even bleed the line for air and make sure the burners work properly."

He did accept that on his first visit to the property to inspect what would be required that he did meet a male occupant of the home. Mr Williams said that that there was nobody home when he returned to complete the work.

Mr Williams was unaware that there was a granny flat at the rear of the house and said he did not go into the backyard. He certainly would not have been aware from his inspections that there was a gas line running to that granny flat.

Questioned by the Advocate Assisting as to what access was required Mr Hagstrom responded "if you're there to test and work, then you probably need to be inside."

As noted earlier, Mr Williams circled a cooker and a room heater as being installed on the premises based on his view of the 1985 compliance plate. He accepted that he did not inspect any consuming appliances because he was unable to gain access to the premises. He was asked by Detective Gruber whether or not he was required to inspect those appliances by regulation. Mr Williams responded "not generally but I can see where this is leading. It's going to be down to bookwork and obviously it's going to come up with something."

Detective Gruber asked him whether or not he has to check any appliances after altering the gas installation and Mr Williams responded "can't be sure of all of that." This response is of great concern. Clause 28 of the Regulation makes it clear that a gasfitter has an obligation to inspect gas appliances connected to the installation immediately after the completion of gas fitting work on a gas installation. (My emphasis).

Detective Gruber pursued this line and asked "do you generally knock on the door and go in and checked the appliances?" Mr Williams responded "yeah if they're home, look, although in, like, I said, bleed the line. Make sure there is no air in it."

With respect to that access he accepted that without a gas bottle he couldn't test the appliances but he did add "I can go in because generally I'd make sure you know like okay there is a cooktop and room heater." This response identifies Mr Williams' understanding that even a cursory inspection will at the very least demonstrate that the appliances noted on the compliance plate are in fact there. Or that appliances that are not noted may have been added.

Such an inspection will also demonstrate whether or not there have been any illegal or non-certified additions or alterations to the gas installation.

He continued "but basically, yeah, you just make sure they're there and otherwise you wouldn't circle it and any additional appliances over the years." He accepted that it was possible that more appliances could have been added since 1985 adding "that's anyone's guess like."

The regulatory scheme relies on qualified and licensed gasfitters certifying an installation after a proper inspection for patent defects. There is no room for guesswork or assumptions.

Whether or not a person is present at the home is irrelevant for the purposes of compliance with the regulation. There is an unambiguous requirement for gasfitters, before certifying a gas installation to inspect that installation which requires a physical observation of all parts of the installation where that is actually possible with further enquiry or action. The absence of an occupier may be a temporary inconvenience but it does not excuse the gasfitter from compliance with the Regulation. This obligation would not extend to uncovering a pipe laid in a solid wall (unless a pressure test discloses the possibility of a leak) but it does extend to a comprehensive inspection of all reasonably visible parts of the installations to check for patent defects.

Evidence of Ricky Treloggen

Mr Williams had an assistant with him on that day, Mr Ricky Treloggen. He described Mr Treloggen's role as "just running for tools and stuff".

Mr Treloggen said that Mr Williams didn't ask to go inside at all and he did not recall him looking at any appliances which is consistent with Mr Williams' evidence.

Mr Treloggen executed a statutory declaration on 6 November 2015. He said in that declaration that Mr Williams went to check the manometer (which measures the pressure in digital form) in order to make sure that it had the same numbers at the end of the test as when the test started. Mr Treloggen said "I recall that the numbers were the same as when started as well as after the job was completed."

During this Inquiry Mr Treloggen retracted that statement and said that it was incorrect and he could not recall undertaking that check. It is a curious inclusion in the statutory declaration and in the absence of any other evidence might suggest that it was a charitable contribution to Mr Williams' position.

Mr Treloggen's evidence at paragraph 8 of the statutory declaration was also qualified during this Inquiry with Mr Treloggen conceding that he just assumed that Mr Williams left the pressure on. Mr Robin said he saw the bike pump being connected to the installation but he didn't see Mr Williams pump that. He doesn't remember when it was removed and he didn't see the manometer being removed.

Certificate of inspection

An exhibit at this Inquiry is the LP gas certificate of inspection which was completed by Mr Williams and dated 26 November 2014. That certificate certifies "that the gas installation, (together with the gas containers, metering and consuming appliances connected to the gas installation) appears to be without apparent defects." The certificate notes that the gas containers were exchange containers.

I note that the words "without apparent defects" are emboldened and underlined on that certificate. There is a space for apparent defects to be noted, in addition to any recommended replacements or repairs. If defects are observed it appears that the certificate will also record those and the fact that a durable defect notice has been attached.

The certificate notes that the following appliances are connected to the installation; a cooker (number one) and a room heater (number eight). Mr Williams accepted in evidence that he did not enter the premises and that he did not observe those appliances but noted them having regard to the existing compliance plate.

Mr Williams completed a tax invoice dated 26 November 2014 and records the following on that invoice:

*Certificate number 669644
disconnected old LPG system
installed new LPG regulator set twin pigtail.
Certified installation.*

At question 545 of the interview Mr Williams was asked whether he knew what regulation he acted under. Mr Williams answered "no". The certificate he used for this inspection is outdated and refers to the now long repealed *Dangerous Goods (Gas Installations) Regulation 1982*. The updated form is available on the Department of Fair Trading's website and is more comprehensive.

Mr Hagstrom described the difference between the ACT and New South Wales systems where new installations in the Australian Capital Territory are likely to require a certifier independent of the gasfitter. He said the type of work that was undertaken at 55 Surveyor Street, if it was conducted in the ACT, would not ordinarily require an independent certifier as it was an alteration rather than a new installation.

Mr Hagstrom indicated that on his inspection of the gas fitting work at Surveyor St after the explosion it appeared to meet standards around the regulator and its compliance plate.

Counsel for Mr Latham cross-examined Mr Hagstrom at length regarding whether or not it was his view that a gasfitter should gain access to the interior of premises before certifying work. He also questioned Mr Hagstrom at length around what certification actually means. Without going into a line by line extraction of the transcript it was clear to me that even Mr Hagstrom was less than confident as to what certification actually means. While he made certain concessions it did appear that his initial view was that it was not always necessary to inspect appliances inside to conduct a complete examination of the gas installation. He appeared to be satisfied, for the most part, that a satisfactory pressure test would be sufficient in most circumstances. This is not a proper interpretation of the regulation.

It became apparent to me throughout the course of the Inquiry, and if the gasfitters appearing at this Inquiry are broadly representative of gasfitters in NSW generally, that gasfitters are unsure as to the extent of their obligations under the regulation. That confusion must point to a deficiency in the training content, both initial and continuing training.

The regulation

The *Gas Supply (Consumer Safety) Regulation 2012* regulates gas installation in NSW. I set out the relevant clauses (28, 29, 30 and 31) from that regulation for the purposes of this Inquiry below:

28 Testing for patent defects

Immediately after the completion of gasfitting work on a gas installation, the person responsible for the carrying out of the work:

(a) in the case of work comprising the installation of a new gas installation:

(i) must inspect all gas containers, gas regulators and gas appliances connected to the installation, and

- (ii) must test the whole installation for patent defects, or*
 - (b) in the case of work comprising the alteration, extension or repair of an existing gas installation:*
 - (i) must inspect such part of the installation as has been altered, extended or repaired, and*
 - (ii) must inspect all gas containers, gas regulators and gas appliances connected to such part of the installation as has been altered, extended or repaired, and*
 - (iii) must test the whole installation for patent defects.*
- Maximum penalty: 100 penalty units (in the case of a corporation) or 25 penalty units (in any other case).*

29 Certificates of inspection

- (1) Within 5 business days after testing a gas installation following the completion of gasfitting work, the person responsible for the carrying out of the work must issue a certificate of inspection for the installation:*
 - (a) to the owner of the installation or a person having the control or management of the installation, and*
 - (b) to the Director-General.*
 - (2) In the case of a gas installation that is installed in any premises (or in any machine that forms part of any premises), the person responsible for carrying out the work must also send a copy of the certificate within the 5-business day period referred to in subclause (1) to any other person who appears to be the usual supplier of gas for use in connection with the installation if the certificate indicates that the installation is patently defective.*
 - (3) A certificate of inspection:*
 - (a) must be serially numbered and in the approved form, and*
 - (b) if it indicates that the installation to which it relates is patently defective, must specify what work needs to be done to rectify the patent defect.*
 - (4) A person must not issue a certificate of inspection with respect to a gas installation that is patently defective unless the nature of the patent defect is indicated on the certificate.*
 - (5) A person who issues a certificate of inspection under this clause must keep a copy of the certificate for 5 years from the date on which it is issued.*
 - (6) A certificate of inspection issued in respect of a gas installation ceases to have effect if a further certificate of inspection is issued in respect of the same installation.*
- Maximum penalty: 100 penalty units (in the case of a corporation) or 25 penalty units (in any other case).*

30 Compliance plates

- (1) The person responsible for the carrying out of gasfitting work on a gas installation:*
 - (a) must detach any compliance plate from the installation before the work is carried out, and*
 - (b) must attach a compliance plate to the installation after the work is carried out, unless the certificate of inspection issued as a result of the work being carried out indicates that the installation is patently defective.*
- Maximum penalty: 100 penalty units (in the case of a corporation) or 25 penalty units (in any other case).*
- (2) A compliance plate attached to an installation in accordance with this clause must comply with the requirements set out in clause 46.*

31 Defect notices

- (1) The person responsible for the carrying out of gasfitting work on a gas installation:*

(a) if satisfied that the gas installation, or any gas container, gas regulator or gas appliance connected to the installation, is patently defective, must attach a defect notice to the installation, container, regulator or appliance, and
(b) if the patent defect cannot be isolated from the installation, must remove any compliance plate from the installation.

Maximum penalty: 100 penalty units (in the case of a corporation) or 25 penalty units (in any other case).

(2) A defect notice:

(a) must have the word "DEFECT" clearly printed on it in upper case letters in type at least 20 millimetres high, and

(b) must be made of durable and weather-resistant material, and

(c) must be securely attached to the gas installation, gas container, gas regulator or gas appliance in a conspicuous position, and

(d) must be in the approved form.

It is clear to me that the gas installation work undertaken by Mr Williams did not comply with the regulation.

Clause 28 requires an immediate inspection of gas appliances connected to the installation. This did not occur. "Gas installation" is defined in Clause 29 and it expressly includes pipes that are downstream of the gas supply point. Similarly, there is no doubt that the work that Mr Williams performed was "gasfitting work" as defined in Clause 29.

To undertake that inspection would require access to the interior of the dwellings on the property. Had that inspection occurred it would have been clear to Mr Williams that there was an open gas pipe in the granny flat.

"Patent defect" is defined as "a defect that presents an immediate or potential danger to persons and that is apparent on testing or inspection". Again, an inspection would have identified this obvious defect. On becoming aware of the defect, the gas fitter is then unable to affix a compliance plate and must prepare a defect notice - clauses 30 and 31.

Submissions

Interested parties were invited to make submissions at the conclusion of the inquiry, and I thank the parties for their assistance in this regard. I note that draft recommendations arising from this Inquiry were distributed to the parties for comment by the Advocate Assisting. Those recommendations were distributed with my input and approval.

Mr Morris SC for Anything Gas and Plumbing observed that there is a general reluctance amongst gasfitters to carry gas cylinders because of the attendant safety risks. It does seem unusual that given that LPG cylinders are routinely carried by persons in normal vehicles every single day that those who might be expected to understand best the safety requirements around safe transport of LPG are reluctant to do so. In any event, given my findings later in this discussion it is a moot point.

Mr Morris SC submits that gas appliances cannot be meaningfully tested unless there is a supply of gas to those appliances. This may well be the case however in these circumstances it was not the operation of any appliance but rather the complete absence of an appliance and a defective gas line. Mr Morris SC submits that his client would not have learned about the illegally installed gas line that was running to the flat at the premises. I am not certain that that conclusion can be drawn, and in

any event no attempt was made to access either the main premises or the granny flat. Not even a cursory walk around is conducted, and no attempt to enter the premises was made. Presumably a gasfitter would be capable of identifying an exposed gas line in any room of those premises.

Mr Morris SC expresses caution around making factual determinations in the absence of any evidence from Mr Latham. I am satisfied however that the property inspections conducted prior to Mr Latham's tenancy made it clear that there was no heater in the flat. I am also satisfied that there had been a free flow of gas into that room as a result of the open ended pipe, that pipe having been left in that unsafe state from whatever time the heater was unscrewed from it and removed. There is no evidence to suggest that Mr Latham did anything to that pipe prior to the explosion and as far as I am aware no party sought to call Mr Latham as a witness.

Mr Morris SC characterises the submissions of Mr Joseph SC as argumentative and focused more on matters germane to a concurrent civil claim. I do not wish to waste a great deal of time commenting on the quality of submissions but I would agree with that characterisation. The coronial jurisdiction is necessarily a solemn one, and my deliberations are assisted more by clear reasoning than sneering remarks and rattling cans.

Turning to Mr Joseph's submissions I acknowledge that it would be impossible to do a pressure test by use of a manometer to any level in respect of the connection from the gas bottle if the connecting gas pipes were not closed off.

Mr Joseph SC submits that "on uncontested evidence, both the certificate and compliance plate issued by Mr Williams were incorrect, unlawful and misleading." I accept that the certification was no certification at all as it is understood under the regulation.

Mr Glascott for Elgas Ltd submitted that an inspection of the gas installation is an inspection which should be conducted by the gasfitter. This is self-evident and I accept that no aspect or component of certification falls to a gas supplier or its representatives.

Further, Mr Glascott agrees with the submission of the Coronial Advocate that the bottles did not suffer from odourant fade, a conclusion which is easily drawn given that the crime scene officer was able to smell the gas as it was expressed from the subject bottles at 55 Surveyor Street after the explosion.

Mr Glascott submits that the draft recommendation five is unnecessary.

The proposed recommendation was in the following terms:

5. That the Department of Fair Trading examine the suitability of coordinated installation and supply of gas to LPG systems. That is, gas tanks should be onsite and connected so that gas installations may be tested with gas rather than air.

I have considered this concern and I agree with Mr Glascott that seeking coordination between gasfitters and gas suppliers is cumbersome and unnecessary. As Mr Glascott observes, such an arrangement would be contrary to clause 34(1) of the regulation:

(1) A person must not supply gas to a gas container that is connected to a gas installation unless a compliance plate is attached to the installation.

The recommendation would present a "chicken and egg" scenario where gas could not be supplied

until a plate is attached, and a plate could not be attached until gas is supplied. A similar difficulty arises in relation to clause 35(1) of the regulation.

If it was considered that systems should be tested with gas rather than air, then gasfitters should be able to make appropriate arrangements to ensure the safe transport of small LPG bottles when required. I am not persuaded however that the test will be any more effective (with the exception of appliance testing) using gas rather than air. A pressure test can be conducted with air and will detect the presence of leaks and defects up to the appliance point.

The explosion at 55 Surveyor Street was not due to a faulty appliance, but rather a defect in the gas installation.

As Mr Glascott observes, a gasfitter under the current regulations does not need to test a gas appliance as the "gas installation" is defined to exclude appliances connected to the endpoint of such an installation.

Additionally, if gas is used and there is a fault then that will potentially lead to a dangerous gas leak.

Mr Bowdi Latham

Mr Bowdi Latham provided a victim impact statement to the Inquiry. Some of the injuries to Mr Latham were a result of the horrific burns he suffered in the explosion, and they were clearly obvious to participants in this Inquiry. Mr Latham's intensely personal statement gave this Court an insight into the magnitude of the physical and psychological damage suffered by him.

If any further persuasion were needed that safety of the highest order must accompany any work on gas installations then Mr Latham's impact statement should be essential reading. I have not set out that statement in these findings out of respect for Mr Latham's privacy, however it is a powerful and unsettling account of the ordeal that Mr Latham and his family have endured since the date of the explosion. I note that Mr Latham especially paid tribute to the unfailing support and courage of his family, and in particular, his mother, Ms Samantha McKittrick.

My findings and recommendations follow.

Michael Antrum
Coroner

FINDINGS

1. The explosion in the “granny flat” situated in the rear yard of 55 Surveyor St, Queanbeyan at approximately 2200hrs on 4 December 2014 occurred as a result of Mr Bowdi Latham lighting a cigarette or a bong. The ignition source for the explosion was the lighter that Mr Latham used, and it ignited the liquid propane gas that was present in sufficient quantity as to be an “explosive mixture”.
2. The liquid propane gas had escaped in an uncontrolled manner into the granny flat as a result of an open and non-standard 3/8” copper pipe. The gas was not subject to odourant fade. The source of the gas were the Elgas bottles delivered to 55 Surveyor Street, Queanbeyan on 4 December 2014.
3. Mr Latham was not aware of the escape of gas into the flat probably as a result of the gas pooling closer to floor level with Mr Latham lying on his bed above that “pool” and possibly as a result of his blunted sensitivity to the smell of gas as a result of his smoking habit. Mr Latham could not have been aware that gas was being expelled into his room.
4. A room heater had been previously attached to the gas pipe however this had been removed prior to Mr Latham’s occupancy of the granny flat by a person unknown. No attempt had been made by any person to render the pipe safe prior to the explosion.
5. There is no evidence that the open pipe in the granny flat was tampered with or altered by any person after the removal of the heater by a person unknown.
6. The gas cylinders were delivered and installed by an Elgas Ltd driver, Mr Duncan Egan. He did so after observing an apparently valid compliance plate at the property. There was nothing deficient or non-compliant in the manner that the cylinders were delivered or installed. The cylinders were not defective.
7. The explosion in the granny flat at 55 Surveyor Street Queanbeyan on 4 December 2014 inflicted catastrophic and permanent injuries on Mr Bowdi Latham. The explosion also caused extensive damage to the granny flat.
8. The pressure test conducted by the gas fitter Mr David Williams on 26 November 2014:

- did not comply with Appendix E to the Australian Standard 5601-2004 specifically in failing to ensure that all open ends were plugged or capped;
- not making any independent enquiry as to whether appliances were connected which would then inform the pressure to be applied during the test.

9. The pressure test conducted by the gas fitter Mr David Williams on 26 November 2014 at 55 Surveyor Street Queanbeyan failed to identify a major defect in the system, namely the open ended pipe in the granny flat situated on that property. The pressure test conducted failed for one or more of the following reasons:

- i) the manometer was faulty;
- ii) the test was not conducted for a suitable period;
- iii) the test was not conducted at a suitable pressure;
- iv) the results of the test were not properly observed or recorded by Mr Williams.

10. The certification issued by Mr David Williams on 26 November 2015 was not in compliance with Clause 28 of the *Gas Supply (Consumer Safety) Regulation 2012* in that gas appliances were not inspected immediately after the gas fitting work. Had such inspection occurred in the granny flat (which housed part of the "gas installation" as it is defined under the Regulation) it would have identified a patent defect. That identification would then have required strict compliance with clauses 29, 30 and 31 with respect to defects.

11. The property inspections carried out by Mr Andreas Haas as agent for the landlord of 55 Surveyor Street Queanbeyan prior to the tenancy by Mr Bowdi Latham and others failed to identify the open pipe in the granny flat on that property. That failure amounts to a breach of ss 13 and 18 of the Residential Tenancy Agreement.

Recommendations

To the Minister for Innovation and Better Regulation (NSW):

1. That the Department of Fair Trading consider applying the new Australian Standard AS5601-2013 to all new gas installations in NSW .
2. That the Department of Fair Trading issue an advice or alert to Licensed Plumbers and Gasfitters emphasising the need to strictly comply with the *Gas Supply (Consumer Safety) Regulation 2012* with respect to LPG installations, and in particular, stress the need to physically inspect the gas installation as it is defined under the Regulation, in addition to undertaking a pressure test in accordance with the applicable Australian Standard before certifying a gas installation.
3. That the Department of Fair Trading advise letting agents (through bodies such as the Real Estate Institute of NSW) of the need to carefully and comprehensively inspect properties prior to and during tenancies for potential hazards such as faulty smoke detectors, faulty fire alarms, damaged appliances, electrical hazards and gas hazards. Consideration should be given to amending *pro forma* inspection records to prompt and record inspection of potential hazards.
4. That the Department of Fair Trading sponsor an amendment to Clause 28 (a) of the *Gas Supply (Consumer Safety) Regulation 2012* to the effect that gas fitters should also inspect (and not just test) the whole “gas installation” as it is defined.
5. That the Department of Fair Trading consider options to mandate periodical testing of pressure test equipment (such as manometers) to ensure continued accuracy and calibration if necessary.
6. That the Department of Fair Trading ensure that gasfitters are using the most recent *LP Gas Certificate of Inspection* and consider amending that form to require gas fitters to identify the type and duration of pressure test performed, and under what pressure.

To the Minister for Regional NSW, Skills and Small Business (NSW):

7. Review the current course ‘Certificate III in Gasfitting’ to ensure that the need for compliance with legislation and the Australian Standard are emphasised to students. In particular, students should understand what “certification” of a gas installation entails and the importance of strict compliance with the *Gas Supply (Consumer Safety) Regulation 2012*.