



OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION: Inquest into the deaths of Teukisia Jeannette
Lale, Richard Steven Lale, Selamafi Letioa Lale,
Jeanette Lafoai Lale, Lini Paul Lale, Jeremiah
Lale, Fusi Kalau Taufu, Anna Maria Taufu,
Kalahnie Fusikalau Fiavaai Taufu, La'Haina
Uheina Taufu and Adele Tapenisi Lee
(Slacks Creek House Fire)

TITLE OF COURT: Coroners Court

JURISDICTION: Brisbane

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2014**

FINDINGS OF: James McDougall, Coroner

CATCHWORDS: House fire, multiple deaths, smoke alarms

REPRESENTATION: Counsel Assisting: Mr Simon Hamlyn-Harris, Ms
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INTRODUCTION

A few minutes before midnight on 23 August 2011, a fire started on the ground floor of the house occupied by the Taufa family and Lale family at 60 Wagensveldt Street, Slacks Creek, Queensland. The first of twenty three (23) '000' emergency calls was made to emergency services at 12.04am on 24 August 2011.

The Queensland Fire and Emergency Service (QFES) crew at Woodridge Station were notified of the fire at approximately 12.05am. They arrived at the scene at 12.11am. By the time they arrived at the scene, police were already in attendance and the house was already fully engaged by the fire.

The fire was to cause the greatest loss of life in a domestic house fire in Australian history.

Eleven (11) people lost their lives including eight (8) children under 18. The deceased were:

Fusi Kalau TAUFA	born 9 March 1954	aged 57
Teukisia Jeanette LALE	born 26 April 1969	aged 42
Anna Malaia TAUFA	born 8 February 1988	aged 23
Jeremiah LALE	born 30 September 1993	aged 17
Lini Paul LALE	born 2 August 1994	aged 17
Adele Tapanese LEE	born 20 June 1996	aged 15
Jeanette Lafoia LALE	born 18 October 21997	aged 13
Selemafi Letoia LALE	born 3 June 2002	aged 9
Richard Steven LALE	born 15 December 2003	aged 7
La'haina Uheina TAUFA	born 6 April 2005	aged 6
Kalahnie Fusikalau Fiavaii TAUFA	born 30 May 2008	aged 3

INQUEST

An inquest was held between 18 August 2014 and 25 August 2014. The following issues were considered at the inquest:

- a) The findings required by Section 45(2) of the Coroner's Act 2003; namely the identity of the deceased, when, where and how they died and what caused their deaths;
- b) The response of emergency services;
- c) The circumstances surrounding the deaths, particularly the cause of the fire and any factors that may have prevented the deceased persons from escaping the fire or otherwise contributed to their deaths;
- d) Whether any accommodation issues contributed to the circumstances in which the deaths occurred;
- e) Any actions that may be taken to help prevent deaths in similar circumstances happening in the future.

The circumstances as recalled by witnesses

The house at 60 Wagenveldt Street was a two story residence, partially built in on the ground floor. Downstairs there was a garage that was converted into an open plan office. This is where Taukinukufili (Tau) Taufa conducted a business preparing tax returns. This was divided off from the rest of the ground floor by a floor to ceiling curtain of cotton material across a distance of several metres.

Taking up almost half the remaining downstairs space was a bathroom and a bedroom. This was walled off from the remaining area by a besser block wall that did not reach the upper floor joists leaving an open space between the top

of the wall and the floor joists. The besser block wall in the office area had a large grass mat (Tapa) hanging as a decoration.

There was a two story extension to the rear of the house. There were three nine kilo LPG gas cylinders and cooking utensils located in the downstairs rear extension area. There was also a laundry which was partially enclosed. The building was constructed of timber and Hardiplank on a brick base. There were wooden stairs supported by steel runners at the front of the house leading up to a timber balcony. There were similar stairs at the back of the house leading up to a small landing at the back door. The roof was iron. The bedrooms upstairs were all occupied. Upstairs there was also a sewing room, kitchen, bathroom, lounge and patio.

There were fifteen (15) people living in the house at the time. The Lale family had moved in approximately two weeks prior to the fire following the 2011 floods. There were fourteen (14) people in the house at the time the fire started and three (3) of them escaped. They were Mr Taukinukufili (Tau) Taufua, Mr Iremia (Mia) Lale and Mr Mark Matauaina. Each of these persons gave evidence at the inquest. The house was owned by Tau Taufua's son Sione Taufua. He had purchased it from Tau Taufua some years earlier. He did not reside there.

The first '000' call was made by Ms Kim Maria Almstetter who lived directly across the road from number 60, at number 53 Wagensfeldt Street. In evidence, Ms Almstetter said that she recalled hearing two loud bangs and she heard yelling from outside her house. She opened the front door to investigate and saw light from the flames coming from the lower left and upper left section of the house opposite. She called Queensland Emergency Services. She estimates that the flames were a third of the way across the house from her left to right and half way across the front veranda. She saw no police or fire emergency vehicles there at the time and started calling out 'Fire! Fire! Fire!' Her partner, Mr Chambers told her to call '000'. She said the fire was getting worse and progressing quite quickly.

Mark Anthony Chambers also gave evidence. Mr Chambers said he was woken up and “I ran down the hallway because a very ferocious glow was coming in our house. Looked – I thought it was actually our house, and I opened the front door and it was all in front of us. It was well alight by then.” When asked by what he meant by “well alight” he said “inferno from bottom to top.”

Mr Chambers was asked what else he saw and said “a couple of gentlemen standing on the right hand side of the house there near the trees. There’s a bit of screaming and that carrying on. I don’t know where that was coming from. I remember screaming, when Tau came running up and down the front of the house, sort of, you know, state of panic not knowing what to do and there was another gentleman. They were yelling up to the corner of the house and then the other gentleman with Tau, he fell to his knees and that’s when Tau ran up the side of the house – came around the back and then came flying down the other side near the trees. (He) had to hold on to all the trees to slow himself down, he was running that fast, and I remember the gas cylinders on the side of the house. I can just remember the hose was flapping around and the fire was coming out and how it had been ignited; it hadn’t blown but the hose was shooting flames out.”

Joveyl Floricon Bautista also gave evidence. He resided at number 47 Wagensfeldt Street. He said that he observed the fire prior to Queensland Police Service and Queensland Ambulance Service attending. He made a ‘000’ call at 12.04am. Prior to making the call he said he’s heard the sound of fireworks. From his bedroom window he could see the house was on fire. He said he came up the street to the corner diagonally opposite the house that was on fire. He recalls the whole street being lit up like it was daylight. He said he could feel the heat from where he was standing and said it was like standing next to a bonfire or furnace. He said he heard a high pitched female scream, something he would never forget. He also recalls the four wheel drive vehicle parked in front of the house catching on fire prior to the arrival of emergency services.

Senior Constable Tony Adam Payne gave evidence that he and Senior Constable Manelie Brier-Mills commenced their shift at 10.00pm on the evening of 23 August 2011. They were contacted by police communications when they happened to be in Wagenveldt Street doing a welfare check. This was at 12.10am. They drove straight to 60 Wagenveldt Street arriving at the scene at 12.11am. He said that the two storey house was completely engulfed in flames as was a FWD vehicle parked in the front yard of the house adjacent to the front patio. As soon as he arrived he formed the view that there was no chance of entering the house to rescue any of the occupants. Senior Constable Brier-Mills also recalls the house being totally engulfed in flames when they arrived.

QFES station officer, Peter Mountain was in charge of the first crew that arrived at the scene. Mr Mountain noted that on his arrival that the house was well alight. He described the structure as being fully involved in fire and he was also quickly advised that there were possibly ten people inside the house. He carried out a risk assessment and determined that there was no prospect of anyone entering the house and attempting a rescue. He said this was due to the intensity and development of the fire. He said: ***“this was the most well-developed house fire I have attended since joining the QFRS and also in my thirty two year career”***.

On arrival, officer, Peter Mountain directed his crew to concentrate on the house. He then, using a hose from the appliance, concentrated on containing and neutralising the large gas bottles that were venting at the side the house. Numerous other QFES crews and appliances quickly attended and attempted to contain the fire and prevent it spreading to neighbouring properties.

Having regard to all of the evidence I find that that the response of emergency services, in particular, QFES and Queensland Police Service was both timely and appropriate.

Evidence of Mr Taukinukufili (Tau) Taufu.

Late on the evening of Tuesday 23 August 2011, Mr Taukinukufili (Tau) Taufu was working at his desk in an office area in the built-in area under the house preparing tax returns. The thirteen other people in the house were all upstairs asleep. There were a number of electrical appliances in the office area, including a desk lamp, a fluoro light above the desk, a small fan heater under the desk, a computer, a radio, a freezer and an air-conditioning unit.

Mr Taufu recalls that around midnight he went upstairs to have a bath to refresh himself and continue working. He recalls leaving the desk lamp on, but thinks "that the fluoro light was off. Mr Taufu said he smoked about 10 cigarettes a day. He did not smoke upstairs.

Mr Taufu remembers being up stairs for about 10 minutes. When he smoked he normally kept an ashtray on his desk. He says in his statement that he does not recall having a cigarette at midnight, and thinks the last cigarette he had was at about 9 pm.

When he went upstairs, he kissed his wife, who was in the lounge room with his grand- daughter Lahaina and Kalahnie, and spoke briefly to her, but believes she then went straight back to sleep. He then went to his bedroom to change his clothing. He then walked to the bathroom, but the light bulb did not work, so he went to the kitchen to get a new bulb. It appears that he went back to the bathroom to replace the bulb but then (he can't remember why) he walked back out to the kitchen dining area. He remembers smelling smoke, and when he got to the kitchen, he saw smoke rising from between an uncovered floor boards and the lino in the kitchen.

Mr Taufu says in his statement that when he saw the smoke, he "raced back outside and down stairs". When he got downstairs he could see flames through the louvered windows of the laundry. The inside of the office was burning, and the flames appeared to him to be about six foot high. They appeared to be

around his desk. In evidence at the hearing, Mr Taufa said that he could see the flames through the curtains dividing the office area from the laundry.

Mr Taufa did not make a '000' call to emergency services. Nor did he try to alert the people asleep upstairs at that stage. He thought he would be able to contain the fire with the hose on the wall at the rear of the laundry. But when he turned the hose on, there was only a trickle of water coming out of it. By the time he got back to the fire with the hose, the fire had taken hold of a curtain dividing the downstairs room, and the flames appeared to have covered the whole office. He tried to flick water from the hose at the flames, but the water appeared to only travel about 1 metre to 1.5 metres from the nozzle.

Mr Taufa's statement continues:

"At this stage I began to get worried. I remember screaming for help at this stage and Mia arrived to give me a hand. Again I don't recall how long this all took. It felt like it all occurred really quickly.

Mia and I continued to try to put the fire out. The fire just kept on spreading. It was at this point that the fire just took off. I don't know what happened. The fire just spread out along the ceiling and toward [the] rear of the room. I recall hearing a sort of explosion. I think it was some sort of can of something. I really don't know what it was. The fire just all of a sudden started spreading all through the room. I remember that flames became so intense and strong that it forced us from the rear of the garage area. I had to... retreat to the rear of the house to get away from the fire. I recall that Mia was still trying to reach the fire with the hose. Mia was standing next [to the] concrete post at the end of the laundry wall. I remember that we were both shouting to get our families up and out of the house. From the time I had first come back down stairs to now I think only about 5 minutes had past.

At this time I started to scream loudly to wake up family so they could get out of the house. I remember screaming and screaming. The fire took over the office so quickly and became so intense that I had to get away from the house. I remember trying to get to the back stairs. When I saw the top of the stairs they were already engulfed with flames. I could not get up this stairs to get into the house.

I had run to the front of the house by the northern side of the house. The flames were so intense by this time that the four wheel drive that was parked at the front of the house burst into flames. I remember seeing the top of the front stairs already engulfed in flames. I remember during this time screaming for my family to get up and get out of the house. When I ran back to the rear of the house I recall seeing both Mia and Misi running around the rear of the house screaming for the family to get out of the house. When I got to the south side of the house I could see that the flames were coming out of the gaps that were between the downstairs wall and the second story timber floor. I recall running down this side of the house when the flames just leapt out of a gap that was in the southern wall. I also recall that I sustained some burns to my forearms and face from the intense heat."

Mr Taufa's oral evidence at the inquest was essentially to the same effect as his statement with some minor variations.

Ieremia (Mia) Lale

Mr Ieremia Lale had lived at the house with his wife and five children since 4 June 2011, after living in Bellbird Park for about a year. Mr Lale worked as a machine operator at Salisbury and had worked a 6am to 2pm shift on 23 August 2011.

Mr Lale says in his statement that in the three months he lived in the house, only once was the oven in the kitchen upstairs used, as all the main meals were prepared downstairs using portable gas cook tops. Mr Lale is a smoker but says that he mainly smoked at the rear of the house. He describes Mr Tau Taufa as a "heavy smoker".

On the night of Tuesday 23 August 2011, Mr Lale went to bed some time after 7pm in the bedroom that he occupied with his wife and two youngest children, at the right rear of the house. His statement continues:

“The next thing I recall was being woken up by Tau yelling from downstairs but I can't recall what he was saying. I remember getting up and hearing Fusi yelling fire fire fire and going off into other rooms. I got up and looked out of the window and remember seeing flames consuming the bottom section of the house. I ran out of the bedroom and ran into Fusi in the hallway. I recall struggling to breath as smoke and fire filled the upper level of the house

... I remember feeling the heat and seeing smoke and flames within the house upstairs. I remember it was pitched black inside the lounge and recall seeing that the back steps were burnt out and flames had filled the lounge and also were [in] the girl's room along with Tau's room. I remember that everyone upstairs were awake at the time. I remember that it was so dark inside the house that you could not see your hand in front of your face if you tried.

I turned back and ran towards the front door and found that it was also burnt out and engulfed by smoke and fire. I remember yelling to my wife to return to our bedroom as I made my way back. At this time, I don't recall running into anyone or seeing

anyone. When I got back into our room, I found that my wife and two young kids were nowhere to be seen. I stood there and called out to her but I didn't hear any replies. By now the fire has fully engulfed upstairs and I could see out the bedroom window that the flames were up to the window sill. I did not go into any other rooms.

I was not wearing any shoes in the house and I recall feeling the heat from the floor boards. After not hearing anyone reply to my calling, I then jumped out the bedroom window and ran to the front of the house to find my family. I remember feeling the heat from the fire and recall downstairs being engulfed by the fire. I remember seeing

Misi and Tau on the road but I didn't speak to them because I was looking for my wife and kids. I thought that they got out before me but I couldn't find them. I recall hearing the first explosion at this time and I think it was my car. Shortly after this, emergency crews turned up and worked on the fire."

Mark (Misi) Matauaina

Mr Matauaina had been in a relationship with Anna (Ana) Taufa for about 8 years. They had two daughters, La'Haina aged 6 and Kalahnie aged 3. Anna and the two children lived at 60 Wagensveldt Street, and he stayed over there usually two or three times a week. Anna and their children occupied the front right bedroom of the house.

On Tuesday 23 August 2011, he had worked the first day of a job as a casual labourer at Carole Park. That evening, he and Anna arrived home at about 9 or 9.30pm. He had to get up early for work the next morning. He recalled going to bed, and being woken during the night. According to his statement:

"Once in Ana's room, I went to sleep on the bed which was underneath the window... I am aware that Ana came to bed, but I don't know when that was.

The next thing that I remember is hearing Fusi's screaming. I don't have any idea what time this was. The screaming was coming from the front upstairs living room area. I remember thinking that something was wrong so I jumped up out of bed, and I opened the bedroom door. I ran down the hallway towards the screams. I think I followed Ana down the hallway, although I can't be sure if Ana was in front of me, or behind me.

When I got into the living room I immediately saw small orange and yellow flames coming from the kitchen floor area... It looked like it was just starting. They were only about ankle high. They appeared to be coming from the laundry below. I would guess that they were coming from above the old freezer.

I then realised there was thick smoke all around me and I had to get down onto my knees and crawl beneath the smoke. I could hear the kids screaming and crying but I don't know where it was coming from. I remember then looking towards the front window towards the front balcony and it looked as though the front steps were on fire.

I remember seeing Richie running near the kitchen table. I'm not sure what he was doing, whether he was running into the kitchen or out of the kitchen. I think he might have been wearing grey pants, but they might have been grey from the smoke.

I could hear Fusi screaming but I didn't know where she was. I couldn't see anyone else then, the smoke was too thick. I then

yelled out something like 'Follow me I'm going to break the screen window ... Jump out and jump onto me.' I then crawled back down the hallway, then I went back to Ana's room and I climbed onto the bed and pushed out the flyscreen and I jumped out first storey onto the ground. I turned back and faced the window, but no one came. The fire had already taken the house. The left side of the house was fully on fire. I was calling NETI!!!, RICHIE!!!, ANA!!!, Jump. But no one came out."

There are some discrepancies in the evidence of the three eyewitnesses. Mr Tau Taufua's account of seeing smoke and immediately racing downstairs and attempting to put the fire before screaming for help is consistent with Mr Lale's recollection of being woken up by Tau yelling something from downstairs. Mr Taufua says that Mr Lale arrived to give him a hand, and the fire just kept on spreading. However, Mr Lale says nothing about helping to put the fire out. The discrepancy is unlikely to be significant, given that they both would have been frantic and distressed by the time Mr Lale got outside. It would be surprising in the circumstances of this tragedy if their recollections of times and of the sequence of events when the house was on fire were identical.

I have quoted at length from the statements and oral evidence of the three survivors in an attempt to convey the extent and trauma of the disaster that was overwhelming them. I find that all of the witnesses who gave evidence were honest and were doing their best to recall what occurred and their involvement in these chaotic and horrific circumstances.

The accounts given by Mr Taufua, Mr Lale and Mr Matauaina of how the fire developed and the rapidity with which that occurred are consistent with the neighbours who witnessed the fire and called '000' and with the first responding police and firemen. This evidence is supported by the expert investigation that followed.

DISASTER VICTIM IDENTIFICATION ('DVI') UNIT NOTIFICATION AND RECOVERY/REMOVAL OF HUMAN REMAINS

Findings of the Inquest into the Slacks Creek House Fire, 60 Wagenveldt St, Slacks Creek

At 2:54am on 24 August 2011, State Disaster Victim Identification Co-ordinator, Senior Sergeant Ken Rach was contacted by the Brisbane Police Communications Centre advising of the fire with 11 persons believed to be deceased. A DVI co-ordination Centre was established. A DVI Recovery Team was formed and deployed to the fire scene.

Due to the structural damage caused by the fire, the DVI Recovery Team could not access the residence until a detailed hazard assessment was conducted. The Urban Search and Rescue Unit were deployed to attend the fire scene to strengthen the structure to make it safe for Police to enter. External scaffolding was required to allow access to the upper floor of the dwelling. This process took several hours to complete.

In the afternoon on 24 August 2011, the DVI Recovery Team commenced the removal of human remains from the fire scene. A Human Remains Holding Area was established and human remains were tagged with DVI reference numbers. This process continued through until 26 August 2011. All the human remains located were subsequently transported to the John Tonga Centre, Brisbane.

On 7 September 2011, an Identification Board was convened before the State Coroner, Mr Michael Barnes and Southern Coroner, Mr John Hutton. Coroner Barnes accepted the identification evidence presented by the DVI Recovery Team and associated Pathologists and dental experts.

Autopsies

On 27 August 2011, the recovered human remains were examined at the John Tonge Centre. CT scans were also conducted.

Autopsies were subsequently conducted by Pathologists, Dr Nathan Milne, Dr Philip Storey and Dr Nadine Forde. Dental examinations were conducted by Associate Professor Alex Forrest and Dr Bradley Ross.

Findings of the Inquest into the Slacks Creek House Fire, 60 Wagenveldt St, Slacks Creek

Forensic pathologist Dr Nathan Milne

Dr Milne was one of the three forensic pathologists who conducted post mortem examinations of the deceased. As noted earlier, the cause of death of each those who died was found to be smoke inhalation, caused by or as a result of house fire. Dr Milne gave evidence about the effects of toxic smoke inhalation and how quickly it might operate to disable and prevent a person from escaping from a fire. He considered that given the high death toll it must have been a very intense fire. Loss of consciousness would follow in minutes from smoke inhalation and death would occur within 5 minutes.

Cause of Death

The cause of death for all of the 11 deceased was found to be smoke inhalation caused by house fire.

INVESTIGATIONS INTO THE FIRE

The cause of the fire was been extensively and comprehensively investigated by police and fire investigators.

The Area of Origin of the Fire

The scientific evidence has established that the fire started in the downstairs office in the area of Mr Taufu's desk and close to the area where his burnt desk lamp was found on the floor after the desk itself had been destroyed by the fire.

This is where Mr Tau Taufu had been working during the evening before Findings of the Inquest into the Slacks Creek House Fire, 60 Wagenveldt St, Slacks Creek

leaving the office area and going upstairs to have a bath, while the other occupants of the house were asleep. The fact that, up until a short time before the fire started, he had been working in the area now identified by the investigations as the area of origin, suggests that likelihood that something must have happened associated with him leaving his desk and going upstairs shortly before midnight.

One of the possibilities is that the desk lamp fell over and the fire started when it came into contact with paper on the desk (but the investigation suggests that the lamp was probably upright at the time of the fire). An alternative explanation is that Mr Taufu was smoking and inadvertently left cigarettes alight on the desk. (He did smoke in the office, but his recollection is that he hadn't had a cigarette since about 9pm). Another possibility is that the fire started from an electrical fault in one of the appliances in the office area.

There is no evidence to suggest that the fire was anything other accidental. The investigations have been extremely comprehensive, and the investigators are in agreement that the fire originated in the area close to Mr Taufu's desk.

The cause of the fire

There were extensive investigations carried out to determine the cause of the fire. In particular, there were a number of tests which focussed on the table lamp as being the direct cause. These tests focussed on the possibility that "over lamping" may have been a cause. "Over lamping" describes using a much higher wattage bulb in say a desk lamp than that recommended by the manufacturer – for example – using a 60 watt bulb in a lamp designed for a 20 watt bulb

THE QFES INVESTIGATION

The lead agency investigating the fire was the QPS. Mr Bardell was the QPS Scientific Officer in charge of the investigation. He described the meticulous Findings of the Inquest into the Slacks Creek House Fire, 60 Wagensveldt St, Slacks Creek

steps that were undertaken to shore up the house and preserve the evidence. He also described the fire scene in detail with the aid of the 3D interactive imaging system. This included the various smoke patterns, which the investigators identified. Mr Bardell confirmed the source of origin of the fire was the downstairs office, more specifically at Mr Taufa's desk.

The chief fire investigator co-ordinating the QFES response was Inspector Bernard Nunn. Four other QFES officers assisted him. The QFES investigators and the QPS investigators worked collaboratively with the QPS in investigating the fire. The investigation at the scene was carried out from 01:22:00 on 24 August 2011 and ceased at or about 16:30:00 on 27 August 2011.

Further, assistance was provided from Electrical Safety Office ('ESO') Inspectors and from Petroleum and Gas Inspectors.

Following the scene investigation, a desk lamp was identified as being close to the source of the origin of the fire. As a result a number of test burns were conducted at the QFES, School of Fire and Emergency Service Training Live Fire Campus to simulate possible scenarios. Further, as Mr Taufa was a smoker, a cigarette test was carried out. The tests were conducted to see if an ignition source for the fire could be identified. Mr Bardell, the QPS Scientific Officer and Mr Porritt, the ESO Inspector were present at Whyte Island for the testing.

Investigators were aware the manufacture's recommendation for the lamp was a 40 watt bulb. Further, that Mr Taufa thought it was around a 40 watt bulb in the lamp at the time of the fire. Mr Taufa did not know what sort of bulb it was other than that the wattage was around 40 watts.

QFES Fire Investigator, Craig George completed a report in relation to the test burns. He refers to three lamp tests. Whilst the third lamp test in his report refers to a 30 watt reflective bulb, it has been established the testing for the third lamp test had actually been carried out on a 60 watt reflective bulb. Mr George has

since left the QFES. As Mr Hemphrey, the current State Fire Investigation Unit Manager was present during the tests he was able to provide evidence at the inquest on the tests conducted.

The testing showed the shortest possible ignition could be achieved during the testing was seven minutes with flashover achieved after one hour and seven minutes.

Inspector Nunn produced a report on his 'Findings of the Fire Investigation'. It is included as section 13 in the Queensland Fire and Emergency Services – Coroners Report. The 'Findings of the Fire Investigation' report was completed on 14 November 2011. Inspector Nunn concluded the fuel load was extremely high due to the total quantity of combustible contents of the building. He noted this was due to the large number of people residing at the premises at the time the fire commenced.

In evidence, former QPS Scientific Officer Bardell advised he undertook some of his own test burns after the QFES investigation was complete in order to clarify his own hypothesis that the cause of the fire was due to the possibility of over lamping. Mr Bardell completed some experiments out the back of the Coomera police station and filmed the tests. In his experiment, when the lamp bulb came into direct contact with the paper, there was a quick ignition.

In addition, Mr Bardell explained the concept of 'flashover'. 'Flashover' occurs when the build up of gasses and unburnt combustibles (smoke) at ceiling height reaches a critical temperature and this in turn causes all fuel (combustible material) in the room to ignite. This can occur in a compartment fire, as this was, as quickly as two minutes depending on the room size and fuel load. Mr Bardell said once ignition of the fire had started in the downstairs office, due to the significant fuel load, 'flashover' would have occurred quickly. He says this is consistent with what Mr Taufa observed although not entirely consistent with the conclusion reached by Mr George following the original QFES test burns.

As a result of Mr Bardell's rudimentary testing and the evidence he provided at the inquest, QFES arranged for Fire Investigator Hemphrey to undertake some further testing in collaboration with a QPS Scientific Officer under more controlled conditions. The tests included a number of scenarios with different watt bulbs.

Other than an increase in temperature, those tests with the lamp in 'normal' upright position using a 60 watt bulb did not show anything out of the ordinary. Those tests conducted with the lamp laying on a flat piece of paper only showed some discolouration of the paper. The tests which attempted to emulate the lamp upside down in a waste paper basket of paper, triggered ignition. This is consistent with the testing Mr Bardell undertook and the original testing undertaken by Mr George. However, importantly, ignition occurred with both a 40 watt bulb (at 13 minutes) and 60 watt bulb, regardless of type (at 6 around minutes). There was no conclusive indication that ignition was as a result of over lamping. The key consideration in causing ignition appears to have been the direct contact of the paper with the lamp bulb.

Mr Hemphrey explained there are a number of variables in this fire which investigators were not aware of. The original testing was carried out with the best information available. In evidence, Mr Hemphrey advised they had no knowledge of the lay out of the desk or type of paper on the desk except for that information provided by witnesses. For example, they had no photographs of the room prior to the fire. Mr Hemphrey said there should not be too much significance paid to the greater than one-hour flashover achieved in the original QFES test burns. He says the testing was very subjective and would depend on the smallest spacing variation of the paper or furniture in the room to determine how fast the fire would travel. He explained in investigations he regularly carries out, flashover generally occurs within seven minutes. He said any number of variables would impact on how quickly it will take a fire to reach flashover after ignition. For example he referred to the woven matting which was hanging on the wall as decoration downstairs and said that if the woven matting on the wall ignited and fell on a couch cushion or office chair that would generate a lot of

heat very quickly due to those products being predominantly made up of polyurethane, a petroleum based product.

Mr Hemphrey had the benefit of reading the reports of Mr Bardell and Mr Porritt prior to giving evidence. This included the testing carried out by the University of Queensland on behalf of the ESO (this is the report in which the investigators concluded that the evidence suggests the lamp was standing upright throughout the hottest period of the fire, and was only knocked over after temperatures had fallen below the melting point of copper.

Mr Hemphrey was able to obtain ignition with the lamp fitted with a 60 watt pear-shaped incandescent globe when the lamp was inverted in a waste paper basket with the globe in direct contact with crumpled paper. However, despite all of the testing and hypotheses that have been canvassed in relation to the cause of the fire by the various agencies, Mr Hemphrey is of the opinion the cause of the ignition of the fire remains undetermined.

STATE CRIME OPERATIONS COMMAND ARSON INVESTIGATION UNIT

Evidence was given by Detective Sergeant Garth Price of the State Crime Operations Command Arson Investigation Unit, which provided assistance to the police scientific examiners led by Sergeant Bardell and QFRS Fire Investigation Officers. There was no evidence found to indicate the fire was deliberately lit.

ELECTRICAL SAFETY REPORT

Mr Carl Porritt and other electrical safety inspectors carried out an examination of all electrical appliances in and around the area of origin of the fire. Mr Porritt prepared an Electrical Safety Office Report entitled "Technical examination of Electrical Equipment located at 60 Wagensfeldt Street, Slacks Creek" (Exhibits E29). The electrical safety officers worked in cooperation with QFRS Fire Investigation Unit headed by Inspector Bernard Nunn.

The purpose of the investigation by electrical safety officers was to establish whether electricity was a possible source of ignition. The examination of the incident location for possible electrical causes failed to positively identify any part of the electrical installation or electrical equipment that may have provided a source of electrical ignition. However, the intensity of the fire in the area or origin may have destroyed some of the evidence and therefore an electrical cause is unable to be eliminated. The study of the equipment located within the remains of the dwelling did not locate any electrical equipment that displayed any electrical activity that could be associated with a source of ignition of the fire.

The damage to the desk lamp, although no electrical activity was clearly identified, demonstrated that the temperature of the fire was highest in the area immediately surrounding the table upon which the desk lamp was found - the desk lamp was located within the hottest area the fire reached in the dwelling.

Further, the lack of remains of the fixed wiring in the office area and the position of the electrical circuit protection devices supports that the fire's initial involvement was in the front of the office area.

The incorrectly protected fixed wiring (incorrect rated fuse wire located in the distribution board) has the potential to allow an electrical fault to develop or go undetected. No fault was identified as the fire damage to the area of origin had melted many of the copper conductors leaving no evidence of an electrical fault burning through the wire insulation and causing a short circuit to occur. While no electrical activity was conclusively identified, the severity of the damage in the area of origin made an electrical source of ignition unable to be determined or excluded.

The electrical safety investigators sought an independent assessment of the desk lamp from the University of Queensland Materials Performance.

University of Queensland Material Performance tests

An inspection of the remains of the lamp was carried out for the Electrical Safety Office by Dr JD Gates of University of Queensland Materials Performance. The examination was a microscopic examination of copper wires to determine if electrical arcing had occurred. The investigation found no physical evidence of such arcing, either prior to or during the fire. The testing revealed the copper conductors inside most of the steel tube melted, and the melted copper then deposited on the inside surface of the tube, especially at the bottom. The distribution of the deposit thickness suggests that the lamp was upright during the fire, such that the molten copper from the conductors flowed down under gravity and pooled in the tube near the lamp base. This again calls into question the theory that the lamp had overturned thus coming into contact with paper on the desk and causing ignition.

Cigarettes

Tests were also conducted with a lit cigarette on top of papers but it self-extinguished after minutes without any discolouration or consumption of the paper or ignition.

Overvoltage

There was a report that there was an overvoltage incident in a nearby residence on the night of the fire. This was investigated by Energex and it was found that the property where the overvoltage occurred and 60 Wagensfeldt Street were not interconnected but fed from different substations and there were no reports or known incidents of overvoltage in the supply to 60 Wagensfeldt Street.

Petroleum and Gas Inspectorate

Mr Bradley Blythe, Senior Inspector of Petroleum and Gas, attended the scene of the fire and conducted an examination of the four gas bottles that had been situated in the downstairs area of the house adjacent to the wall of the office area. They had been subjected to extreme heat, but he determined that they had operated as designed. They had been positioned so as to vent away from the house in the event of a fire and did so.

Insufficient awareness of the dangers of a house fire

It is not surprising that when Mr Taufua first saw smoke coming through the kitchen floor, his immediate reaction was to investigate the source and, when he saw the fire, to try to put it out. He clearly did not foresee how rapidly the fire would develop or how quickly it would endanger the occupants of the house. Mr Taufua did not attempt to wake the sleeping occupants and evacuate the house as early as he could. I find that he acted as he did because he believed that he could put the fire out with a garden hose, and did not realise that his family were in danger. When he realised that he would not be able to extinguish the fire, he began to shout for his family to get out of the house. But by then the fire had already developed so much that he was unable to get back up the back steps, and when he ran to the front of the house, the front steps were also engulfed in flames.

Mr Lale was woken by Mr Taufua's cries from downstairs. Mr Matauaina woke to the sound of Fusi (Mr Taufua's wife) screaming from the upstairs living area. Both describe a scene of darkness, heat, smoke and confusion inside the house. Mr Lale remembers getting up and hearing Fusi yelling "fire, fire, fire". He says that everyone upstairs was awake. He ran into Fusi in the hallway but could not find his wife and children. He jumped out the window of the bedroom at the back of the original part of the house, but by then the flames were up to the window sill. He thought his family must have got out

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before him. Mr Matauaina similarly, could not find anyone; he managed to jump out the front bedroom window, after calling for others to follow him.

Once this particular fire started, it is likely that some or all of the deaths would have been prevented if the sleeping occupants had been quickly awoken and had realised that they needed to leave the house as quickly as possible. The optimal way in which that could have occurred would have been if Mr Taufa had tried to wake them as soon as he first saw smoke and working smoke alarms had been activated. The QPS Scientific Examinations Report records that seven of the deceased were found in Bedroom 1 in the rear extension of the house (behind the kitchen and adjacent to the back steps). Three were found in Bedroom 4 and one in Bedroom 5.

Lack of working smoke alarms

The Coronial Report by Det. Sgt Egart concludes that smoke alarms were either not present in the dwelling or were not maintained. There was no evidence of any working smoke alarm in the house, and no witness gave evidence of hearing a smoke alarm at the time of the fire. Mr Taufa gave evidence that there was one on the ceiling in the hallway between the bedrooms in the front part of the house, but it had gone off and someone had turned it off. He thought this had happened in the 1990's. Tracey Taufa gave evidence of another smoke alarm in the kitchen but there is a clear inference that, if there was one there it was not in working condition. None of the surviving occupants of the house suggested that smoke alarms had been maintained.

The existing legislation at the time required the owner of a domestic dwelling to install at least one smoke alarm per level, and also required a lessor of a domestic dwelling to replace a smoke alarm at the end of its service life. Mr Tau Taufa's son, Sione Taufa, was legally the owner of the house, but did not live there at the time of the fire. His evidence was to the

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effect that although he owned the house and did work around the house for his parents, the practical responsibility for the upkeep of the house remained with his father as it had always done.

It seems likely that none of the people who lived in the house at the time of the fire were aware of the legislative requirements. Although the adults most likely knew the purpose of smoke alarms, they were not necessarily aware how critically important they could be, particularly when people are asleep.

Formal Findings S.45

I find that Fusi Kalau TAUFA age 57, Teukisia Jeanette LALE age 42, Anna Malaia TAUFA age 23, Jeremiah LALE age 17, Lini Paul LALE age 17, Adele Tapanese LEE age 15, Jeanette Lafoia LALE age 13, Selemafi Letoia LALE age 9, Richard Steven LALE age 7, La'haina Uheina TAUFA age 6 and Kalahnie Fusikalau Fiavaii TAUFA age 3, died at about 12.10am on 24 August, 2011 at 60 Wagensfeldt Street, Slacks Creek. They died after being trapped in their home which was consumed by fire. The cause of death in each case was smoke inhalation. I find there is no evidence to suggest this fire was deliberately lit. I am not able to conclude on the balance of probabilities the exact cause of the fire. I find that the origin of the fire was the downstairs office in the close vicinity of the desk.

CORONER'S COMMENTS

Section 45 and 46 of the Act provides for the comments a coroner may make:

46 Coroner's comments

- (1) A coroner may, whenever appropriate, comment on anything connected with a death investigated at an inquest that relates to –
 - (a) public health or safety; or
 - (b) the administration of justice; or

- (c) ways to prevent deaths from happening in similar circumstances in the future.
- (2) The coroner must give a written copy of the comments to -
- (a) a family member of the deceased person who has indicated that he or she will accept the document for the deceased person's family; and
 - (b) any person who, as a person with a sufficient interest in the inquest, appeared at the inquest; and
 - (c) if the coroner is not the State Coroner - the State Coroner; and
 - (d) if a government entity deals with the matters to which the comment relates -
 - (i) the Attorney-General; and
 - (ii) the Minister administering the entity; and
 - (iii) the chief executive officer of the entity; and
 - (e) if the comments relate to the death of a child –
 - (i) The family and child commissioner; and
 - (ii) the chief executive (child safety)
- (3) The coroner must not include in the comments any statement that a person is, or maybe –
- (a) guilty of an offence; or
 - (b) civilly liable for something.

RECOMMENDATIONS

Whilst there were two smoke alarms in the upstairs section of the house (one in the kitchen and one in the hallway), neither were working and none of the numerous witnesses who were interviewed by the QPS, or the first two QPS Officers on scene, heard smoke alarms activated at the time of the fire. I find there were no working smoke alarms in the premises at the time the fire

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commenced. I find also that had the smoke alarms been working there was a reasonable prospect that some or all of the victims could have escaped. Any working smoke alarm, be it Ionisation or Photoelectric, would most probably have saved lives.

The QFES made a number of recommendations concerning increasing the current legislative requirements regarding smoke alarms. This was expanded on in a detailed statement provided by Chief Superintendent, Neil Reid.

Mr Reid described the difference between an Ionisation and a Photoelectric smoke alarm and explained why the QFES is of the view the Photoelectric smoke alarm is superior. Photoelectric smoke alarms are compulsory in commercial premises. In essence, the photoelectric alarm responds more quickly to a broader range of fires and is less likely to cause false alarms (meaning people are less likely to interfere with them).

Mr Reid also emphasised the importance of smoke alarms being interconnected, preferably hard wired. The interconnection of smoke alarms means when one alarm operates they all trigger. This provides a loud warning to more parts of the home than would be possible with a single alarm. Mr Reid explained it was important to consider the placement of alarms. In particular, the need for smoke alarms in the bedrooms due to a closed bedroom door limiting the occupant hearing an alarm.

Mr Reid set out QFES suggestions in relation to possible changes to the smoke alarm requirements in domestic dwellings. A domestic house fire occurs in Queensland every 4.7 hours. Every effort should be made by government to prevent such a tragedy occurring again. The recommendations suggested by QFES and made by me as part of this inquest will lead directly to lives being saved if they are implemented. The measures recommended are easily put in place at little cost when compared to other household luxuries that are now considered normal household expenses such as flat screen televisions and the like.

Legislation should be put in place as soon as possible the effect of which is such that all places where people sleep should be provided with early warning of a fire occurring at a sound level capable of waking them. That is a minimum of 75 Decibels at the bed head. To enable this to be achieved the legislation should provide:-

- That as a minimum in all areas of a building where people sleep, **approved smoke alarms** are installed:-
 - a) in any storey containing bedrooms
 - i. between each part of the dwelling containing bedrooms and the remainder of the dwelling and in every bedroom; and
 - ii. where bedrooms are served by a hallway, in that hallway, and
 - b) in any other storey not containing bedrooms, and
 - c) in the case where there is more than one alarm required they shall be interconnected by hard wiring where possible and by wireless signal where hard wiring is impractical.

The above implementation should take a staged approach to allow homeowners to prepare for the changes. After the commencement of the legislation, homeowners are required to ensure the new legislative requirements are met in the following circumstances:

- If a dwelling does not have smoke alarms, or does not have smoke alarms that comply with the current legislation, the new legislative requirements must be met immediately [*or alternatively, within a stipulated period of grace of, say, 6 or 12 months*];

- When smoke alarms cease to operate when tested or are at the end of their useful life (10 years from manufactured date);
- If the owner enters into a contract to sell the dwelling, the day before the date of settlement;
- With respect to rental properties, before any new tenancy commences, and within 12 months of the commencement of the legislation in the case of existing tenancies.
- The current legislative requirements continue to apply until the new requirements are met in accordance with this staged approach.

An **approved smoke alarm** for these purposes means a photoelectric type smoke alarm that complies with Australian Standard AS 3786(Smoke Alarms) and:

- a) If installed in a newly constructed domestic dwelling, is a 240 volt hard wired smoke alarm, or
- b) If installed in an existing domestic dwelling in addition to, or replacing existing smoke alarms, a 240 volt hard wired smoke alarm where access is available to the ceiling space or, otherwise, a 10 year lithium battery smoke alarm which is interconnected wirelessly, to all other required smoke alarms in the dwelling. It is important that all smoke alarms are interconnected so that if one alarm is triggered all the remaining alarms also operate. This will only be possible if all alarms are the same type and are compatible with each other.

It is also important to say that smoke alarms are only part of the process to ensure people escape to a point of safety from their burning home. A practiced Escape Plan is the other critical component of safe evacuation. It is also

recommended that the importance of smoke alarms and other safety requirements such as an Escape Plan be well publicised by QFES and Government. It is hoped that by the full implementation of these recommendations a tragedy such as this will never again occur.

James McDougall
South-eastern Coroner