IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

**COR 2020 002777**

**FINDING INTO DEATH WITHOUT INQUEST**

*Form 38 Rule 63(2)*

*Section 67 of the **Coroners Act 2008***

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| Findings of: | AUDREY JAMIESON, Coroner |
| Deceased: | GP |
| Date of birth: | 11 September 1985 |
| Date of death: | 25 May 2020 |
| Cause of death: | 1(a) Electrocution |
| Place of death: | Golden Point, Victoria, 3350 |
| Keywords: | Electrocution, residual current device, electrical work |

## INTRODUCTION

1. GP was 34 years of age at the time of his death. He lived with his wife, Mrs P and their two children in a Ballarat suburb.

2. GP held a current Restricted Electrical Worker's Licence (**REL**) from Victoria, which permitted him to perform low-voltage electrical disconnect and reconnect electrical installation work relating to equipment that is connected to a fixed electrical installation.[1] He was also an authorised service agent for Daikin air conditioners (**AC**).

3. GP worked as a sole trader for his refrigerator and AC repairing and maintenance business. He had previously worked as a refrigerator mechanic for another company for approximately ten years.

4. GP had a past medical history of grand mal seizures (2003) and was treated with anti-convulsant medications between 2012 and 2017.[2] He also consulted a psychiatrist briefly between 2015 and 2017. There was no concern of physical and/or mental ill health in the lead up to his death, apart from reporting feeling unwell sometime in March 2020 due to a viral infection.[3]

5. On 25 May 2020, GP was electrocuted while performing an air conditioner replacement at a residential property.

## THE CORONIAL INVESTIGATION

### Jurisdictions

6. GP's death was reported to the Coroner as it fell within the definition of a reportable death in the *Coroners Act 2008* ("the Act"). Reportable deaths include deaths that are unexpected, unnatural or violent or result from accident or injury.

7. The role of a coroner is to independently investigate reportable deaths to establish, if possible, identity, medical cause of death, and surrounding circumstances. Surrounding circumstances are limited to events which are sufficiently proximate and causally related to the death. The

[1] See Energy Safe Victoria website for more information, https://esv.vic.gov.au/licensing-coes/electrical-licences/restricted-electrical-workers-licence/.
[2] Coronial Brief of Evidence (**CB**), Statement of Mrs P; Police Summary.
[3] CB, Ibid.

purpose of a coronial investigation is to establish the facts, not to cast blame or determine criminal or civil liability.

8. Under the Act, coroners also have the important functions of helping to prevent deaths and promoting public health and safety and the administration of justice through the making of comments or recommendations in appropriate cases about any matter connected to the death under investigation.

9. Section 7 of the Act specifically stipulates that a coroner should avoid unnecessary duplication of inquiries and investigations by liaising with other investigative authorities, official bodies or statutory officers. In this respect, my investigation and enquiries have highlighted the extensive investigative work undertaken by bodies, including Energy Safe Victoria (**ESV**) and the Victorian WorkCover Authority (WorkSafe).

10. ESV, the main regulator responsible for electrical safety in Victoria, carried out its own independent investigation into the circumstances of GP's death in determining whether any electrical fault which contributed to the accident. The ESV investigation report has assisted my investigation in identifying the issues requiring further investigation and in satisfying myself to fulfil my prevention role.

**Conduct of my investigation**

11. As part of the coronial investigation, advice was sought from the Coroners Prevention Unit[4] (**CPU**), in particular, in examining possible prevention opportunities in this matter with a view to making recommendations if appropriate.

**Sources of Evidence**

12. Victoria Police assigned Senior Constable Scott Howard (SC Howard) to be the Coroner's Investigator for the investigation of GP's death. SC Howard conducted inquiries on my behalf, including taking statements from witnesses – such as family, the forensic pathologist, treating clinicians and investigating officers – and submitted a coronial brief of evidence.

13. I also had regard to the investigation brief compiled by WorkSafe, which consists, *inter alia*, of witness statements and an independent investigation report by ESV.

[4] The Coroners Prevention Unit (**CPU**) assists the coroner with research in matters related to public health and safety in relation to the formulation of prevention recommendations, as well as assisting in monitoring and evaluating the effectiveness of the recommendations.

14. This Finding draws on the totality of the coronial investigation into the death of GP including evidence contained in the coronial brief and the WorkSafe investigation brief. Whilst I have reviewed all the material, I will only refer to that which is directly relevant to my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[5]

## MATTERS IN RELATION TO WHICH A FINDING MUST, IF POSSIBLE, BE MADE

### Circumstances in which the death occurred

15. According to the statement of material facts provided by WorkSafe, Mr B purchased a new Daikin split system air conditioner unit ("AC unit") from a local electrical appliance store, The Haymarket. The Haymarket offers installation services on the appliances sold by engaging its subsidiary business and independent contractors. As part of Mr B's purchase, he opted for installation service for his AC unit. The Haymarket contacted GP who was one of its independent contractors, to perform this installation.[6]

16. On 25 May 2020, at approximately 9.30am, GP arrived at Mr B's home in Gold Point and proceeded with his job. GP went up to the rooftop with a ladder and commenced working on the compressor ("outdoor unit") that was located in the centre of the rooftop, towards the rear of the property.[7] There was a solar panel installed next to the compressor on the rooftop.

17. At approximately 9.50am, Mr B noticed no noise coming from the rooftop and went outside to check on GP. He called out to GP but did not get a respond. He climbed on a water tank to access the rooftop and saw GP lying face down, unresponsive.

18. Mr B immediately went inside his house to make a call to emergency services and then went back onto the rooftop to commence cardiopulmonary resuscitation (**CPR**) on GP in accordance with the operator's instructions.

19. Ambulance Victoria, followed by Victoria Police and Fire Rescue Victoria (**FRV**), arrived at the scene shortly after. GP was unable to be revived by paramedics and was declared deceased.

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[5] Subject to the principles enunciated in *Briginshaw v Briginshaw* (1938) 60 CLR 336. The effect of this and similar authorities is that coroners should not make adverse findings against, or comments about, individuals unless the evidence provides a comfortable level of satisfaction as to those matters taking into account the consequences of such findings or comments.

[6] Court File (**CF**), WorkSafe Brief – Statement of (WorkSafe Inspector) David Rogers; Statement of (WorkSafe Investigator) Christine Gallagher.

[7] CF, WorkSafe Brief – Energy Safe Victoria Investigation Report.

20. FRV firefighter Ryan Young, who attended the switchboard noted it was already open and noted the main power switch was already switched to the "off" position, whereas all other circuit breakers were still in the "on" position.[8] Mr Young noted the solar electricity switch below the switchboard was in an "off" position.

21. At approximately 10.45am, CitiPower personnel, Ian Bett attended the Gold Point residence and confirmed all the power at the vicinity was disconnected.[9]

22. Representatives from ESV and WorkSafe also attended and commenced their respective investigations.

**Identity of the deceased**

23. On 25 May 2020, GP, born 11 September 1985, was visually identified by his wife.

24. Identity is not in dispute and requires no further investigation.

**Medical cause of death**

25. On 27 May 2020, Fellow Forensic Pathologist Dr Chong Zhou[10] practising at the Victorian Institute of Forensic Medicine (**VIFM**), conducted an autopsy on the body of GP. Dr Zhou also reviewed a post-mortem computed tomography (**CT**) scan and referred to the Victoria Police Report of Death (Form 83), VFIM contact log and preliminary examination form and medical records from UFS Medical Sturt Street. Dr Zhou provided a written report of his findings dated 23 July 2020.

26. The autopsy revealed evidence of moderate coronary artery disease. There was no other evidence of significant natural disease.

27. Dr Zhou noted that the injuries on the back of GP's left hand were consistent with entry points of the electrical current, with evidence of superficial electrical burns.

28. Dr Zhou commented that death in such circumstances is usually secondary to a cardiac arrhythmia when the electrical current passes through the heart.

[8] CF, WorkSafe Brief – Statement of Ryan Young.
[9] CF, WorkSafe Brief – Energy Safe Victoria Investigation Report.
[10] Under the supervision of Dr Heinrich Bouwer, Forensic Pathologist at the VIFM.

29. Toxicological analysis of post-mortem samples did not identify the presence of any alcohol or any commons drugs or poisons.

30. Having considered the circumstantial evidence contained in the Form 83 and post-mortem evidence, Dr Zhou ascribed at the medical cause of death to 1 (a) electrocution.

## WORKSAFE INVESTIGATION

31. WorkSafe also conducted an independent investigation into the circumstances of GP's death. They advised that they did not commence a prosecution against any party in relation to this matter.[11]

## ESV INVESTIGATION

32. As noted, ESV Enforcement Officers Sandy Atkins and Andrew Burgdorf, and ESV Compliance Officer, Dean Needham attended the Gold Point property on the afternoon of 25 May 2020 and examined the surroundings.

33. On 27 May 2020, ESV officers returned to the Gold Point residence and conducted further electrical testing and inspection of the main switchboard. Ms Atkins, produced an investigation report which documented ESV's findings following examinations of the scene.[12]

34. ESV officers observed from the main switchboard at the Gold Point property was a single-phase circuit that supplied electricity to the AC unit. The switchboard was protected by a 20 Amperes (**A**) circuit breaker labelled as "MAIN SWITCH A.C". There were no residual current devices (**RDCs**) installed within the switchboard.

35. ESV officers tested the electrical circuit at the scene and determined the following[13]:

- The solar panel frames were connected with a low resistance to the installation's electrical earthing systems.
- The mounting rails on which the solar panels were connected had a low resistance to the installation's electrical earthing systems.
- The roofing material on which the solar panels were mounted had a low resistance to the installation's electrical earthing systems.

[11] CF, Covering Letter from WorkSafe to Coroners Court of Victoria dated 12 July 2021.
[12] CF, WorkSafe Brief – Energy Safe Victoria Investigation Report.
[13] CF, WorkSafe Brief – Energy Safe Victoria Investigation Report.

- The metal casting of the compressor (outdoor unit of the air conditioner) was connected with low resistance to the installation's electrical earthing systems.
- The roofing material on which the compressor was mounted to was not electrically connected to the installation's electrical earthing systems.
- The compressor had its cover removed from the electrical and refrigeration connections to the unit with all the cables secured in the terminals of the compressor.

36. ESV officers identified no faults with the electrical installation. They noted that the "MAIN SWITCH A.C." was turned on, indicating the electrical supply to the AC unit was on. The subsequent removal of the cover of the compressor led to the compressor's terminals being exposed, which created a risk of dangerous voltage levels at the terminal.

37. ESV officers posited that either contact with the conductive path via the metal roofing material adjacent to the compressor or the compressor's earthed metal case with the terminal could cause sufficient current to flow through GP's body.

**CPU REVIEW**

38. As part of its review, the CPU interrogated the Court's surveillance database which contains information on all reported deaths that had electrocution as the primary cause. Specifically, the CPU analysed the data of the cohort of electrocution death into which GP fell. These reported deaths included electricians and tradespersons engaged in paid electrical works such as rewiring houses and commercial properties; installing electrical appliances or electrical signs or similar; and performing maintenance on electrical devices at the time of their deaths.[14]

39. Since June 2011, there have been 12 fatalities in the context of electrocution whilst completing paid electrical work, and GP's incident was one of the two fatalities that had occurred in 2020.[15]. The CPU noted these fatalities were rare, given the statistical figure.

40. On reviewing the individual fatality, the CPU identified the identical primary factor contributing to these fatalities being human error. The CPU commented these fatalities could have been prevented if electricians or tradespersons had followed proper procedures and taken safety precautions.

[14] This cohort excludes people who were performing paid work that was not electrical related.
[15] The related matter is COR 2020 4529 Jarrod Peter Fox.

41. In line with the observation of the ESV investigation, the CPU stated it was likely that GP's failure to isolate the power connecting to the compressor before commencing his installation work was the main factor contributing to the electrocution.

**COMMENTS**

Pursuant to section 67(3) of the Act, I make the following comments connected with the death.

42. Incontrovertibly, GP's death was preventable. He was a considerably experienced technician, and his past training and experience would have most likely exposed him to the importance of ensuring that all electrical circuits or equipment handled in the course of work are disconnected from the electricity supply, or that adequate precautions be taken to prevent electric shock or other injuries in the handling of electrical circuits or equipment[16].

43. The evidence suggests GP did not turn off the "MAIN SWITCH A.C" that supplied electricity to the AC unit, and I am not able to determine the reason that he failed to do so. It is unfortunate that such an oversight while working on a property without RCDs led to GP's tragic demise.

44. RCDs were first mandated in Victoria in 1992, with rules and regulations mandating the requirements of the installation of RCDs on all electrical circuits in new Victorian homes and when alterations and additions, such as renovations and extensions are carried out on existing homes. However, there were no rules and regulations mandating this requirement to retrofit RCDs to older Victorian homes.

45. Over the past decades, Victorian Coroners have investigated a number of electrocution deaths[17] and raised the issue of mandating the retrofitting of RCDs. The Court had also since been in collaboration with ESV in expanding the Australia and New Zealand Wiring Rules to include that additional requirement.

46. On 1 September 2016, I delivered a Finding into the death of Jarrod Debono without Inquest [18]. Mr Debono died from electrocution on 13 September 2015, in the circumstances where he had entered the roof cavity at a property without disconnecting the electricity supply and there

[16] Section 43 of *Electricity Safety Act 1998* (Vic).
[17] Finding following an Inquest into the Death of David William Herbert Spence COR 2010 801, delivered on 9 March 2011; Finding following an Inquest into the Death of John Alfred Wailes COR 2011 2011, delivered on 29 February 2019; Finding into the Death of Jarrod Joseph Debono without Inquest COR 2015 4662, delivered on 1 September 2016.
[18]Court Reference: COR 2015 4662.

were no RCDs installed. Although, I was unable to find if the presence of a RCD would have definitively prevented Mr Debono's death, I noted that RCDs are effective safety tools. Thus, the absence of RCD in Mr Debono's situation meant that an opportunity to possibly prevent his death was lost.

47. As a result, I recommended the Victorian Department of Environment, Land, Water and Planning (**DELWP**) to conduct a feasibility assessment on all sold homes and all rental properties in Victoria be fitted with an RCD to advance the mandate of retrofitting a RCD to all Victorian homes.

48. Subsequently, the Secretary of the DELWP advised the Court that the DELWP had accepted the recommendation and agreed to carry out a feasibility assessment. I note that DELWP had liaised with the Department of Justice and Community Safety (on behalf of Consumers Affairs Victoria) in taking the initiative to include new considerations specific to electrical safety in residential rental premises.

49. By virtue of the *Residential Tenancies Regulations 2021* (**RTR**), the new considerations require a two-yearly safety inspection of electrical installation in all residential tenancies[19]; and require all switchboards in any residential rented premises be fitted with a circuit breaker and a switchboard type RCD on any circuit that supplies power outlets or lighting points, by 29 March 2023[20].[21]

50. I accept the CPU's opinion and acknowledge that the prevention opportunities to be pursued in the circumstances such as GP's incident are rather fundamental to the awareness of following appropriate procedures and observing safe work practice.

51. I also acknowledge and commend the efforts of ESV in raising awareness among electricians and tradespersons through the "Never work live" campaign. The campaign provides that electricians and tradespersons should *"Never: try to save time by eliminating procedures and risk assessment; allow customers to leave the electricity supply on; work on energised equipment; [and] overlook isolating and proving all equipment and control circuits are safely isolated"*.[22]

[19] Which is also known as "electrical safety checks".
[20] Regulation 9 of the *Residential Tenancies Regulations 2021*.
[21] Energy Safe Victoria, Risk Alert – Residential Tenancies Regulation 2021, requirement for RCDs, CBs and a new switchboard. See further at https://esv.vic.gov.au/wp-content/uploads/2022/06/Risk-Alert-Residential-Tenancies-Regulations-2021-requirement-for-RCDs-CBs-and-new-switchboards-20220530.pdf
[22] See further at Energy Safe Victoria website, https://esv.vic.gov.au/campaigns/never-work-live/

**FINDINGS AND CONCLUSION**

1. Pursuant to section 67(1) of the *Coroners Act 2008* I make the following findings:

    a) the identity of the deceased was GP, born 11 September 1985;

    b) the death occurred on 25 May 2020 in Golden Point, Victoria, 3350;

    c) I accept and adopt the medical cause of death ascribed by Dr Chong Zhou and I find that GP died from electrocution while performing an air-conditioner installation at a residential property; and

    d) I find further that the source of the electrical current was from the exposed terminal of the compressor due to the removal of the compressor's casing.

I convey my sincere condolences to GP's family for their loss.

Pursuant to section 73(1A) of the Act, I order that this Finding be published on the Coroners Court of Victoria website in accordance with the rules.

I direct that a copy of this Finding be provided to the following:

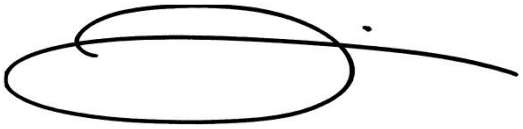
Ms P

Senior Constable Scott Howard, Coroner's Investigator, Victoria Police

Energy Safe Australia

Victorian WorkCover Authority (WorkSafe)

Signature:




AUDREY JAMIESON

CORONER

Date: 6 March 2023

NOTE: Under section 83 of the ***Coroners Act 2008*** ('the Act'), a person with sufficient interest in an investigation may appeal to the Trial Division of the Supreme Court against the findings of a coroner in respect of a death after an investigation. An appeal must be made within 6 months after the day on which the determination is made, unless the Supreme Court grants leave to appeal out of time under section 86 of the Act.