IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

COR 2020 004529

FINDING INTO DEATH WITHOUT INQUEST

Form 38 Rule 63(2)

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

Findings of:	AUDREY JAMIESON, Coroner
Deceased:	Jarrod Peter Fox
Date of birth:	4 October 1982
Date of death:	18 August 2020
Cause of death:	1(a) Electrocution
Place of death:	Croydon, Victoria, 3136
Keywords:	Electrocution, electrical work, electrician

INTRODUCTION

1. Jarrod Peter Fox was 37 years of age at the time of his death and lived with his de-facto partner, Ms Rowe and their two children in an eastern suburb of Melbourne. He was generally of good health and had no significant medical history.

2. Mr Fox was a self-employed electrician of his business, J Fox Electric Pty Ltd. He held a current A Grade Electrician Licence which permitted him to carry out all types of electrical installation without supervision. He also held an individual Registered Electrical Contractor (**REC**) registration[1].

3. Ms Rowe considered her partner an experienced electrician after having worked in the electrical industry since he left high school.

4. On 18 August 2020, Mr Fox was fatally electrocuted while performing electrical work at a residential property in Croydon.

THE CORONIAL INVESTIGATION

Jurisdiction

5. Mr Fox'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.

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

7. 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.

[1] This means a person granted a registration as an electrical contractor on the basis that Energy Safe Victoria is satisfied that the person meets the requirement set out in Regulation 9 of the Electricity Safety (Registration and Licensing) Regulation 2010.

8. 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").

9. ESV, the main regulator responsible for electrical safety in Victoria, carried out its own independent investigation into the circumstances of Mr Fox's death to determine 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 satisfy myself to fulfil my prevention role.

Conduct of my investigation

10. As part of the coronial investigation, advice was sought from the Coroners Prevention Unit[2] (**CPU**) in examining possible prevention opportunities in this matter with a view to making recommendations if appropriate.

Sources of evidence

11. Victoria Police assigned Acting Sergeant Chris Duke[3] (AS Duke) to be the Coroner's Investigator for the investigation of Jarrod's death. AS Duke 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.

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

13. This finding draws on the totality of the coronial investigation into the death of Jarrod Peter Fox 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

[2] 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.
[3] Acting Sergeant was a Detective Senior Constable while undertaking this investigation.

my findings or necessary for narrative clarity. In the coronial jurisdiction, facts must be established on the balance of probabilities.[4]

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

Circumstances in which the death occurred

14. According to the statement of material facts provided by WorkSafe, Ms Orzlowski had engaged her high school friend, Mr Ebdon to carry out electrical and cabling works at her Croydon home since relocating there in January 2018. Ms Orzlowski stated Mr Fox had occasionally attended some of the electrical maintenance jobs along with Mr Ebdon.

15. The house was a one-level weatherboard house with a wooden floor frame supported by wooden joists and stumps. Between the ground and the floor, there was a crawl space, which was accessible through a manhole at the driveway side of the house. The main switchboard and meter panel were positioned on the front porch, adjacent to the front door.

16. The available evidence indicates Mr Ebdon was also a licensed electrician and held an individual REC registration for his business.[5] There was no written evidence to suggest that Mr Fox was subcontracted by Mr Ebdon for the works done at Ms Orzlowski's house. It appears that their working relationship was transactional upon individual jobs.

17. In August 2020, Mr Ebdon was again contacted by Ms Orzlowski to carry out further electrical works at her home and Mr Fox attended with him on 11 August 2020 to carry out some works.

18. On 18 August 2020, at approximately 8.00am, Mr Fox arrived at Ms Orzlowski's home to resume the remaining works and told her that Mr Ebdon would not be joining him. The remaining works included relocating the internet cable from the outside to the inside wall, neatening up the telephone cable and replacing a switch at the front lounge room with a new power point.[6]

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[4] 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.

[5] CF, WorkSafe Brief.

[6] CF, ESV Investigation Report; Statement of Ms Orzlowski.

19. Ms Orzlowski was working from her home that day and her daughter was home during the day and left home in the afternoon.[7]

20. Before commencing his work, Mr Fox advised Ms Orzlowski that he had turned off the main power. Ms Orzlowski then proceeded to work on her phone and laptop, presumably on battery.

21. At approximately 2.00pm, Mr Fox advised Ms Orzlowski that he had completed the tasks for the telephone and internet cable. Ms Orzlowski confirmed with him that her internet and telephone were working fine. It is unclear if Mr Fox had subsequently disconnected or isolated the electricity supply. Ms Orzlowski's daughter could only recall the salt-lamp was not on.

22. Subsequently, Mr Fox went on to work on the last task, which appeared to require him to work in the crawl space under the house. Ms Orzlowski recalled hearing occasional "tapping" from under the house.

23. At approximately 3.25pm, Ms Orzlowski noticed that Mr Fox had become quiet and decided to check on him. She called out to him but did not receive any response. She then crawled into the crawl space and discovered Mr Fox lying on the ground near the cable entry from the switchboard above, unresponsive and pulseless. She immediately contacted emergency services.

24. Ambulance Victoria, followed by Fire Rescue Victoria (**FRV**) attended shortly after. Upon arrival ambulance paramedics waited until FRV firefighters made the scene safe before they could commence resuscitations.

25. A FRV firefighter, Alexander Davie, who attended the switchboard noted all isolation circuit breakers were in the "on" position.[8] Mr Davie switched all the circuit breakers to the "off" position. Paramedics proceeded to attempt to revive Mr Fox but without success and declared him deceased.

26. Representatives from ESV and WorkSafe later attended the scene and conducted preliminary investigations.

[7] CB, Statement of JC.
[8] CF, WorkSafe Brief – Statement of Alexander Davie.

Identity of the deceased

27. On 18 August 2020, Jarrod Peter Fox, born 4 October 1982, was visually identified by his client, Ms Orzlowski.

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

Medical cause of death

29. On 21 August 2020, Forensic Pathologist Registrar Dr Joanne Chi Yik Ho[9] practising at the Victorian Institute of Forensic Medicine (**VIFM**), conducted an autopsy on the body of Jarrod Peter Fox. Dr Ho also reviewed a post-mortem computed tomography (**CT**) scan and referred to the Victoria Police Report of Death (Form 83), VFIM contact log, preliminary examination form and scene photographs taken by Victoria Police. Dr Ho provided a written report of her findings dated 9 November 2020.

30. The post-mortem examination revealed evidence of multiple thermal injuries to the face and hand, consistent with electrocution. There was no evidence of natural disease that may have caused or contributed to Mr Fox's death.

31. Dr Ho commented that most electrocution deaths are secondary to cardiac arrhythmia[10], usually ventricular fibrillation[11], which is caused by the passage of a current through the heart. The less common mechanism is due to respiratory arrest, whereby the passage of a current passes through the chest, causing the muscles and diaphragm to go into a spasm and become paralysed and eventually leading to death.

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

33. In view of the circumstantial evidence contained in Form 83 and the post-mortem evidence, Dr Ho ascribed the medical cause of death to 1 (a) electrocution.

FAMILY CONCERNS

34. Ms Rowe, while being attended by the Court Family Liaison staff, raised concerns about the circumstances surrounding Mr Fox's death. Ms Rowe later provided the Court with a letter by

[9] Under the supervision of Dr Sarah Parsons, Forensic Pathologist at the VIFM.
[10] Improper beating of the heart, whether irregular, too fast or too slow.
[11] Fast heart rhythm.

way of an electronic mail ("email"), questioning when the electricity supply came to be connected and whether at any point in time during Mr Fox's work, Ms Orzlowski and/or Ms Orzlowki's daughter had "turned the power back on".[12] She also raised whether there was a smart meter and suggested that a smart meter could indicate at which point the electricity supply was reconnected.

35. To interrogate Ms Rowe's concerns, I directed AS Duke to request a supplementary statement from Ms Orzlowski and her daughter to clarify the perceived discrepancy of circumstances (in Ms Orzlowski's previous statements to ESV and the Court) and an absence of reference as to whether they had attended the switchboard. Their respective statements confirmed that they did not attend to the main switchboard at any point to alter the electrical supply.

ESV INVESTIGATION

36. As noted, ESV Enforcement Officers attended the Croydon residence on 18 August 2020. They conducted electrical testing and took a number of photographs where the incident occurred.

37. ESV Enforcement Officers Brent Matthews and Keith (Sandy) Atkins, who attended the property confirmed the wiring where Mr Fox was found continued back to the main switchboard. They also confirmed there was no indication any circuit breaker protection devices had been isolated at the main switchboard.

38. ESV Enforcement Officers observed the main switchboard further and noted the following:

- The main switchboard was comprised of a main enclosure with a main switch, circuit breakers, a 30mA residual current device (**RCD**); with two additional enclosures for the air conditioner circuit breakers;

- All the circuit breakers within the main enclosure were protected by the RCD, except for the "power" circuit breakers in pole positions 2 and 3, and the "stove" circuit breaker in pole position 4;

- There were no lock-out tag devices installed on either of the circuit breakers;

[12] CF, Email to the Court dated 21 September 2021.

- The main enclosure was the origin of all cables, which included thermos-plastic sheathed[13] (**TPS**) and tough rubber sheathed[14] (**TRS**) type cables;

- The cables were wired through the bottom of the meter box into the wall cavity and continued through the bottom plate of the wall via a hole that had been drilled through the wooden floor; and

- There was a metal hanger hanging out of the drilled hole.

39. On 19 August 2020, ESV Enforcement Officers reattended the scene in daylight hours to continue their investigation. They removed the plastered wall at the rear of the main switchboard and located a punctured part on the rubber surface of the TRS cable within the wall cavity.[15] Within the wall cavity, a pink string tied to a jack-chain was lying on a wooden joist near the drilled hole.[16]

40. ESV Enforcement Officers noted the hanger was hooked on the TRS cable and that cable had evidently been scraped by the bent end of the coat hanger.[17]

41. ESV Enforcement Officers also cut out the punctured part of the TRS cable to verify the specific protection device for the cable via testing on a digital multi-meter. From the tests, they identified that the (red) active conductor of the TRS cable was terminated to the load site terminal of a C20 circuit breaker in pole position 3 (Circuit 2) of the main switchboard and was not protected by an RCD.[18]

42. After these tests, ESV Enforcement Officers seized the relevant part of the TRS cable to the ESV office for further investigation.

43. On 20 August 2020, ESV safety engineer Goran Sokoleski conducted further investigation and provided an examination report. Upon close examination, Mr Sokoleski confirmed a puncture in the insulation of the TRS cable through the insulation sheathing into the active conductor. He noted arc marks on the active conductor and commented an arcing event was

[13] A type of cable with polyvinyl chloride (**PVC**) thermoplastic basic insulation over the conductors and additional PVC thermoplastic outer sheathing over the basic insulation.
[14] A type of cable consists of rubber insulated conductors with additional rubber sheathing over the basic insulation.
[15] CF, ESV Investigation Report.
[16] Ibid.
[17] Ibid.
[18] Ibid; Statement of Brent Matthews.

most likely the cause of the marks. He also commented that the arcing event indicated electricity flowing through the active conductor which had come into contact with a live part.

44. The ESV Enforcement Officers posited that the metal coat hanger became energised when it punctured through the insulating sheathing to the active conductor of the TRS cable. It was likely that Mr Fox received an electric shock while he was handling the metal coat hanger.[19]

45. In summary, the substance of the evidence from the ESV's investigation concluded that Mr Fox did not isolate the main switch that serves to disconnect all power supply to the house. The continuous power supply at the time energised the final sub-circuit located in the wall cavity where the cable was damaged.

Compliance with legislative requirements

46. ESV Enforcement Officers could not be satisfied that Mr Fox was handling electrical circuits or electrical equipment (electrical installation work[20]) without the electrical supply being disconnected[21] and hence, found no specific breach of section 43(4) of the *Electricity Safety Act 1998*.

WORKSAFE INVESTIGATION

47. WorkSafe Victoria also conducted an investigation into the circumstances of Mr Fox's death and concluded to take no further action following its investigation. The Court was advised of this decision by way of a letter dated 2 August 2021.

CPU REVIEW

48. As part of its review, the CPU interrogated the Court's surveillance database, which contains information on all reported deaths with electrocution as the primary cause. Specifically, the CPU analysed the data of the cohort of electrocution death into which Mr Fox 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.[22]

[19] CF, ESV Investigation Report.
[20] Section 3 of the *Electricity Safety Act 1998.*
[21] As Mr Fox was working near energised parts of the electrical installation and was not handling electrical circuits
[22] This cohort excludes people who were performing paid work that was not electrical related.

49. Since June 2011, there have been 12 fatalities in the context of electrocution whilst completing paid electrical work, and Mr Fox's incident was one of the two fatalities that occurred in 2020.[23] The CPU concluded that these fatalities were rare, given the statistical figure.

50. On reviewing the individual fatality, the CPU identified a primary issue contributing to these fatalities being human error. The CPU noted these electrocution fatalities could have been prevented if electricians or tradespersons had followed proper procedures and taken safety precautions.

COMMENTS

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

1. Mr Fox's death is a tragic reminder of the inherent danger associated with installing electrical equipment and the importance of adhering to safe work practice. I accept that Mr Fox was a considerably experienced electrician. 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 injury in the handling of electrical circuits or equipment.[24] I also accept the evidence of Ms Rowe that he was a very safety conscious person and Ms Orzlowski's evidence that he was always "very professional". In these circumstances, it is difficult for me to posit what led to Mr Fox's oversight.

2. In the ESV investigation report, Mr Matthews reported the RCD was working fine but I note that the circuit breaker in pole position 3 (Circuit 2) was not protected by an RCD. In the absence of any expert opinion, I am not able to determine whether the presence of a RCD would have switched off the supply of electrical current. I am also not able to determine whether that would have prevented Mr Fox coming into contact with electrical current through the punctured TRS cable.[25]

[23] The related matter is COR 2020 2777 Paul James Gleeson.
[24] Section 43 of *Electricity Safety Act 1998* (Vic).
[25] See paragraphs 38 and 41.

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

4. I also acknowledge and commend ESV's efforts 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"*.[26]

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 Jarrod Peter Fox, born 4 October 1982;

   b) the death occurred on 18 August 2020 in Croydon, Victoria, 3136; and

   c) I accept and adopt the medical cause of death ascribed by Dr Joanne Chi Yik Ho and I find that Jarrod Peter Fox died from electrocution while performing electrical works at a residential property;

   d) AND I find further that Jarrod Peter Fox's death was preventable had the electrical supply been disconnected;

   e) AND in the absence of a smart meter, I am unable to find at which point the electrical supply was connected (or vice versa).

2. On the evidence available to me, I also am unable to find whether Jarrod Peter Fox's death would have definitively been prevented, had Circuit 2 been protected by a Residual Current Device. However, I do find that the absence of a Residual Current Device to protect Circuit 2 means that an opportunity to possibly prevent Jarrod Peter Fox's death was lost.

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

[26] See further at Energy Safe Victoria website, https://esv.vic.gov.au/campaigns/never-work-live/

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 Rowe, Senior Next of Kin

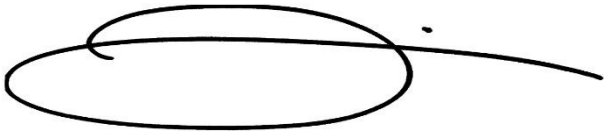
Shaun Marcus, Arnold Dallas McPherson Lawyers, Lawyers on behalf of Ms Rowe

Yana Nesina, Russell Kennedy Lawyers, Lawyers on behalf of Victorian Workcover Authority

John Murphy, Energy Safe Victoria

Acting Sergeant Chris Duke, Coroner's Investigator, Victoria Police

Signature:



AUDREY JAMIESON

CORONER

Date: 3 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.