IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2011 000488

FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)
Section 67 of the ***Coroners Act 2008***

Inquest into the Death of: PHILIP HARRISON

Delivered On:	21 July 2015
Delivered At:	Coroners Court of Victoria 65 Kavanagh Street SOUTHBANK Vic 3006
Hearing Dates:	28 and 29 January 2015
Findings of:	Coroner Rosemary Carlin
Representation:	Dr David Neal SC and Mr David O'Brien for Motorcycling Australia
Police Coronial Support Unit	Leading Senior Constable King Taylor

I, ROSEMARY CARLIN, Coroner having investigated the death of PHILIP HARRISON

AND having held an inquest in relation to this death on 28 and 29 January 2015
at Coroners Court MELBOURNE
find that the identity of the deceased was PHILIP DAVID HARRISON
born on 31 December 1961
and the death occurred on 5 February 2011
at Winton Motor Raceway, 41 Fox Street, Winton 3673
from:

1 (a) MULTIPLE INJURIES

in the following circumstances:

Introduction

1. Philip Harrison died on 5 February 2011 after falling from his motorcycle during a race at Winton Motor Raceway (**Winton**). He was 49 years old.

2. Mr Harrison was born on 31 December 1961 in Ireland. He married and lived in England for a few years before separating from his wife and moving to Australia in 2005. At the time of his death, he was employed as an IT manager and lived with his partner, Yuanyuan (Michelle) Chu in St Kilda.

3. Mr Harrison was a keen motorcycle rider and was licensed to race by Motorcycle Victoria (**MV**). He was a member of the Hartwell Motorcycle Club. He had international racing experience and knew Winton very well.[1] He entered between seven and nine race events a year at Winton, Phillip Island and South Australia. He had many trophies and was particularly fast in the wet.

4. On Friday 4 February 2011, Mr Harrison attended Winton to compete in round one of the annual Hartwell Motorcycle Club championship. He attended with friend and fellow motorcycle rider John Carbury. The two of them attended the annual meet at Winton every year.

5. Mr Harrison entered his Triumph Daytona 675 cc motorcycle in the Thunderbike class (Race 8) which was for motorcycles with three or less cylinders. Race 8 combined

[1] Statement of John Carbury dated 6 February 2011, page 1.

Thunderbikes with the Historic and Supermono classes of motorcycles. Mr Harrison entered as a 'non expert' meaning he had previous race experience and was above the 'novice' category.

6. Races were scheduled for Saturday afternoon and Sunday, preceded by practice and qualifying sessions on Friday and Saturday mornings. Mr Harrison paid a fee to participate in the Friday practice session.

7. On Saturday 5 February 2011, there was consistent rain and the track was wet. At 9 a.m., prior to the practice session, Peter Hall, Clerk of Course, conducted a riders' briefing. Wayne Bradley, the race steward, was also present. Riders were told that the track was wet, it was possible the program could change because of the weather and that they should raise any concerns with the key officials. They were also told that motorcycle racing was dangerous and advised as to the rules of the circuit and pit area.

8. Mr Harrison's motorcycle was 'scrutineered' prior to his race. Glenn Nankervis, the scrutineer, reported that Mr Harrison was meticulous with his bike and he did not detect any faults.

9. The practice and qualifying sessions took place in the rain and Mr Harrison and other riders used tyres with a tread pattern specific for wet weather. Mr Harrison qualified in fourth position which placed him in the front row of the grid.

10. At approximately 3.07 p.m., Race 8 commenced. The race comprised a warm up lap followed by six racing laps. There were 15 riders.

11. On lap 5, Mr Harrison was in third position when he attempted to overtake fellow racer, Mark McHenry, on a straight. Mr McHenry was riding on the left hand side of the track in preparation for the upcoming right hand corner. Mr McHenry was between the 1st and 2nd braking markers for the corner and had commenced braking when he noticed Mr Harrison coming up alongside him on his right. His first thought was 'what a great gutsy move'. He conceded his race position and prepared to follow Mr Harrison around the corner when he noticed the front of Mr Harrison's motorcycle 'dip under brakes and suddenly his front end just tucked underneath'[2]. Mr Harrison and his motorcycle both fell to the left onto the track in front of Mr McHenry who narrowly avoided them. The motorcycle then slid approximately 72.3 meters on the bitumen track and a further 43.8 meters on the grass verge

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[2] Statement of Mark McHenry dated 6 February 2011, page 2.

before colliding with a tyre barrier. Mr Harrison followed the same path and crashed into the rear of his motorcycle. The tyre barrier was displaced at the point of impact.

12. Mr McHenry had a camera fitted to his motorcycle, which recorded his top speed prior to braking as 168 km/hour.

13. Track officials immediately 'red flagged' the race causing the riders to cease racing. Once all the riders were travelling at a safe speed, Mr P Hall requested the trackside medical crew to attend to Mr Harrison, who was unresponsive. Cardio Pulmonary Resuscitation was commenced and continued until emergency services arrived. Paramedics could not revive Mr Harrison and declared him deceased.

14. Michael Burke, Senior Forensic Pathologist with the Victorian Institute of Forensic Medicine inspected Mr Harrison's body on 7 February 2011. The post-mortem CT scan showed massive haemothoraces and right pneumothorax. There was a haemoperitoneum and flexion compression fractures of the thoracic vertebrae. There was also basal subarachnoid haemorrhage and possible disruption of the atlanto-occipital joint. Dr Burke recorded the medical cause of death as 1(a) Multiple Injuries.

General Purpose of a Coronial Investigation

15. Section 67 of the *Coroners Act 2008* (**the Act**) requires a coroner investigating a *reportable death* [3] to find, if possible:

    a) the identity of the deceased;

    b) the cause of death; and

    c) the circumstances in which the death occurred[4].

16. *Cause* of death in this context is accepted to mean the medical cause or mechanism of death. The *circumstances* in which the death occurred is confined to background or surrounding circumstances which are sufficiently proximate or causally related to the death.

17. Under the Act, coroners have another important function and that is, where possible, to contribute to the reduction in number of preventable deaths and the promotion of public

[3] Reportable death is defined in Section 4 of the Act. Most commonly it refers to unexpected, unnatural or violent deaths, or deaths resulting from accident or injury.

[4] Section 67 of the Act provides that a coroner need not make findings as to circumstances if an inquest was not held, the deceased was not in state custody or care and there is no public interest in doing so.

health and safety by way of making comment or recommendations about any matter connected to the death they are investigating.

18. Although a coroner must examine the circumstances in which a person died, this is not to lay blame or attribute legal or moral responsibility to any individual or institution. Rather, it is to determine causal factors and identify any systemic failures with a view to preventing, if possible, deaths from occurring in similar circumstances in the future. Coroners do not make determinations of guilt or negligence; these are the province of other jurisdictions. Indeed, the Act specifically prohibits coroners from making a finding or comment that a person has, or may have, committed an offence. A coroner should set out relevant facts, leaving others to draw their own conclusions from the facts.

19. Sometimes it will be necessary for a coroner to examine whether particular conduct fell short of acceptable or normal standards or breached a recognised duty, but that is only to determine whether the conduct was a causal factor or a mere background circumstance. The law of causation in the coronial context will be examined later in this Finding.

History of this investigation

20. Victoria Police investigated the circumstances of Mr Harrison's death on behalf of the Coroner. Worksafe Victoria (**Worksafe**) also investigated the incident, as Winton fell within the definition of a workplace in the *Occupational Health and Safety Act 2004*. Pursuant to a memorandum of understanding between Victoria Police and Worksafe the two investigations were conducted concurrently. At the conclusion of its investigation, Worksafe did not initiate a prosecution in respect of the incident.

21. In due course, the Coroners Court was provided with briefs of evidence from Victoria Police and Worksafe. The two briefs were identical save for four additional witness statements in the police coronial brief.

22. During its investigation, Worksafe obtained a report from Dr Raphael Grzebieta (now professor) a highly qualified expert in the area of civil engineering, road safety, roadside barriers, vehicle crashworthiness, crash investigation and crash reconstruction. Professor Grzebieta raised a number of concerns about the race and track, including weather conditions, barrier placement, track inspections and licensing.

23. Motorcycling Australia Limited (**MA**) commissioned its own report into the circumstances of the incident and the matters raised by Professor Grzebieta for the purposes of the coronial investigation. This report was prepared by Christopher Hall, a mechanical engineer also

highly qualified in the area of accident reconstruction, motor raceway design, construction and safety. He was also a motorcycle rider and enthusiast. Mr C Hall disagreed with a number of conclusions of Professor Grzebieta.

24. Lawyers for MA also submitted to the Coroners Court a number of supplementary statements from witnesses who had previously given statements during the coronial investigation. These supplementary statements and the report of Mr C Hall were added to the police coronial brief to form an inquest brief.

Focus of the Inquest

25. There were no issues in relation to Mr Harrison's identity or his medical cause of death and my findings are as stated above.

26. An inquest was held on 28 and 29 January 2015 to examine the circumstances in which Mr Harrison died and identify the potential for preventative measures.

27. Arising from the contest between the two expert reports, the Inquest focussed on two main issues:

    - The weather conditions on the day of the race; and
    - The position of the tyre barrier into which Mr Harrison and his motorcycle collided.

28. MA was granted leave to appear as an interested party at the Inquest.

29. The following witnesses gave evidence:

    - Mark McHenry (rider);
    - John Carbury (rider);
    - Wayne Bradley (race steward);
    - Peter Hall (clerk of course);
    - Lyall Allen (MA track inspector);
    - Raphael Grzebieta (expert); and
    - Christopher Hall (expert).

30. A number of exhibits were tendered by MA during the course of the Inquest.

31. Following the Inquest I obtained additional material from Standards Australia and received submissions on behalf of MA.

32. I have had regard to the totality of material obtained during the coronial investigation, but shall only refer to so much as is necessary for narrative clarity or resolution of the issues[5].

Control of motorcycle racing in Australia

33. MA is the national governing body for motorcycle racing in Australia. It is a federation of State and Territory motorcycling bodies. It is a not-for-profit organisation with stated aims which include the promotion and control of motorcycling sport in Australia and ensuring that it is conducted in a safe and fair manner[6].

34. MA is responsible for licensing all sealed surface venues in Australia for use in motorcycling sports. MA issues these licences on an annual basis following inspection of the track. Every third year venues are required to have a major track inspection by a MA licensed venue inspector.

35. MA trains and issues licences to the venue inspectors and national (level 4) racing officials, such as clerks of course and stewards. In 2011, MA had 16 employees and numerous volunteers including 80 accredited venue inspectors, 12 of them in Victoria. Venue inspectors are reimbursed for expenses, but otherwise perform the inspections gratis.

36. MA produces guidelines that set out the track licensing process and circuit layout requirements. At the time of Mr Harrison's death these guidelines were called the Venue Standards. In 2012, the Venue Standards were replaced by the Track Guidelines, which are essentially the same so far as is relevant to this investigation.

37. The introduction to the Venue Standards stated:

> '*These standards have been developed to make motorcycle competition [as] safe as possible whilst acknowledging it is a sport with a significant element of danger. Invariably accidents will happen which could cause serious injury or death.*'

38. Under the heading 'Application', it was stated:

> '3.2.1 *These standards must be applied in their entirety to new venues. With existing venues areas of non-compliance must be the subject of a targeted risk assessment. The targeted risk assessment may result in a scheduled upgrading of the venue.*

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[5] The totality of material comprises the inquest brief, evidence adduced at Inquest, including exhibits, materials later obtained from Standards Australia and MA submissions. It will all be retained on the court file.

[6] See MA's Constitution, which is available on the internet.

Voluntary modifications (upgrading) by the circuit operator, to an existing venue must comply with these standards.

3.2.2 *The aim is for total compliance of all venues.'*

39. The Venue Standards required that *'a speed diagram must be produced for circuits'*[7] and that applications for licensing must include *'a diagram of speeds showing run off distances on every corner'*[8]. The term *'speed diagram'* was defined as a separate drawing with a graphic representation of the run off distances at every corner of the track and clearly indicated track edges, barriers and obstacles within the racing arena[9].

40. MV licenses all motorcycle venues in Victoria other than sealed surface venues. MV also issues permits for particular events on any track. MV trains and issues licences on behalf of MA to race officials for state and club events (up to level 3). MV also licenses competitors and issues them with a copy of MA Manual of Motorcycle sport (**MOM**) containing general competition rules.

41. Thus, before a motorcycle race can be held on a sealed surface venue in Victoria, such as Winton, the venue needs to be licensed by MA, an event permit must be issued by MV and all riders must be licensed by MV. All of these requirements were satisfied in this case.

42. Apart from annual inspections, tracks are inspected prior to every racing event by the stewards appointed by the sanctioning body, being either MA or MV. Stewards have the power to prohibit the use of the venue for a particular event if they identify non-compliance with the Venue Standards.

Layout of the Winton circuit

43. At the time of Mr Harrison's death Winton was owned by the Benalla Auto Club Incorporated and leased to Winton Motor Raceway Pty Ltd which controlled the operation of the raceway and all its assets. Michael Ronke was a Director of Winton Motor Raceway Pty Ltd and secretary of the Benalla Auto Club Incorporated. He was the effective owner of the venue. Mr Ronke provided a statement outlining the history of the circuit; however, he died before the Inquest.

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[7] Clause 3.5.1

[8] Clause 2.2.1.

[9] Clause 3.5.1

44. Winton was constructed as a 2 km bitumen car-racing circuit in 1961. In 1996 a 1 km extension was added allowing the circuit to be used in either a 2 km configuration ('**short circuit**') or 3 km configuration ('**long circuit**'). An engineer, who, according to Mr Ronke, was renowned in track design, designed the extension.

45. A diagram of the Winton circuit is attached to this Finding and marked as 'Attachment A'[10].

46. The majority of activities at Winton are organised by third parties who hire the track. The track is mainly used for car racing and mainly in the long circuit configuration. The short circuit is used for motorcycle events, classic cars and tyre testing. There is a separate unsealed motor-cross track used for dirt bike racing which is not relevant to this investigation.

47. Both circuits are travelled in a clockwise direction. The short circuit has 10 corners and the long circuit has 12. Each corner is referred to by number, however the numbers differ depending on which circuit is used because the start lines are different,. The long circuit corner numbers are shown in Attachment A with the markings 'T 1' to 'T 12'. Although Mr Harrison was racing the short circuit, for ease of reference I shall adopt the numbering in Attachment A.

48. When used as long circuit vehicles turn left at T 10 and travel the 1 km extension before rejoining the short circuit. On the short circuit vehicles continue straight past T 10 and turn right at the next corner. Mr Harrison fell on the straight between T 9 and T 10 as he was approaching the right hand bend.

49. When the 1 km extension was added in 1996, a 56.3m concrete wall barrier was constructed between the exit to the extension (T 10) and the point of re-entry to the existing track. Two rows of tyres (five tyres high) were placed in front of the wall as protection. The purpose of this concrete wall/tyre barrier was to prevent vehicles that failed to take T 10 in the long circuit from crossing the grass and entering the track on the other side of the extension (Kitome Straight). As it was designed to catch the 'run off' from T 10, it was roughly parallel to the track extension, but perpendicular to the short circuit at that point.

50. At the same time, a further 8.5m tyre barrier (also five tyres high) was placed at the end of the concrete wall closest to the short circuit track edge[11]. This 8.5m length of tyres

[10] This diagram was Exhibit J in the Inquest.

consisted of three rows of 12 or 13 tyres[12] permanently bound together by metal rods and clips (**the barrier extension**). The total length of the combined concrete wall and barrier extension was 64.8m, with the track side end of the barrier extension 0.7 m from the marked short circuit track edge. When viewed from the approach side the whole barrier appeared to be one solid line of tyres, five tyres high, roughly perpendicular to the short circuit track.

51. Whilst the position of the barrier extension did not change, there were separate bundles of tyres that were moved about depending on which circuit was in use. Each of these extra bundles was three rows deep, five tyres high and weighed approximately 1.5 tonne. During long circuit races, the extra bundles were placed next to the barrier extension and across the short circuit track. The bundles were then chained together to form a solid five tyre high tyre wall closing off the short circuit. The purpose was to prevent errant vehicles from accidentally continuing on the short circuit instead of turning left at T 10. During short circuit races, the extra bundles were stored behind the barrier extension, effectively forming an 8.5m six tyre deep barrier (**the tyre barrier**) which, at its closest point, was 0.7m from the marked track edge.

52. It was into the tyre barrier that Mr Harrison and his motorcycle collided. The point of impact was approximately 4.5 m from the marked track edge.

53. A hand drawn single line in Attachment A shows the approximate position of the combined concrete wall and tyre barrier. The line is not to scale and is useful as a guide only. The mark 'X' indicates the approximate point of impact by Mr Harrison and his motorcycle.

Winton track inspections

54. As Winton is used for car and motorcycle racing, it is inspected and licensed by both the Confederation of Australian Motor Sport and MA.

Inspection on 14 April 2010

55. Winton's last inspection by MA prior to the death of Mr Harrison was on 14 April 2010. Lyal Allen was the inspector. It was a major (triennial) inspection and resulted in the issue

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[11] All distances have been taken from the statement of the investigating police officer Leading Senior Constable Brendan Lynch.

[12] From the photographs this barrier appears to be 13 tyres long, however the linked bundle may only have been 12 tyres long as the first tyre in each of the three rows may have protected the edge of the concrete wall.

of a venue licence valid from 7 May 2010 to 6 May 2011. The cost of the inspection and licence was $1,000.[13]

56. Mr Allen had a long-standing involvement with motorcycle racing. He was a Director of MA and a MA accredited venue inspector. He had conducted venue inspections since the early 1980s and became accredited when accreditation was introduced in 2004. He had practical engineering experience, but was not tertiary qualified.

57. Mr Allen had attended Winton previously as a race steward and this was either the first or second time he had inspected the track for MA.[14] He had been there a total of 5 or 6 times prior to April 2010. On all prior occasions the track was in its long circuit configuration and the short circuit was closed by the tyre barrier extending across the track past T 10.

58. Mr Allen met Mr Ronke prior to his inspection. Mr Ronke gave him an A3 map of the track that showed the fixed assets of the track including the concrete barrier between T 10 and Kitome Straight[15]. It did not show the tyres in front of that concrete barrier, nor the barrier extension. Mr Allen and Mr Ronke discussed two corners that did not appear to conform to the Venue Standards.

59. Mr Allen then inspected the track by driving around the long circuit although the short circuit was also open (the tyre barrier had not been extended across the track). He took 24 photographs and met with Mr Ronke again. He gave Mr Ronke a preliminary inspection report and two Targeted Risk Assessments in respect of the two non-conforming corners. Mr Allen later produced a detailed report of his inspection (including photographs) for MA, following which the annual licence was issued.

60. Although Mr Allen's Inspection Report referred to various run off distances, he conducted his inspection without regard to a speed diagram. It appears that such a diagram did not exist in relation to Winton.[16] Mr Allen's evidence was that speed diagrams were more to do with design of the track and he did not have one when he conducted his inspection.

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[13] Statement of Michael Ronke dated 31 March 2011, page 3.

[14] His statement indicates he had inspected it once before, but in evidence he said this was the first time.

[15] This diagram was prepared by Wayne Mitchell Surveying Pty Ltd and is marked 'Plan of Track Extension, Concrete Walls & Spectator Fences'.

[16] The MA venue inspector in 2007 noted that he had not been provided with required documentation and though requested no such diagram was ever produced during the Inquest.

61. At no time did Mr Allen identify any issue with the tyre barrier into which Mr Harrison later collided.

Inspections on the day

62. As the Clerk of Course, Peter Hall was responsible for ensuring that the race event was run according to the 2011 MOM governing rules. At around 7.30 a.m. on Saturday, the race day, Mr Hall drove around the track and found that the track "*needed attention in removing small debris*" [17] including tree branches and gravel. He was also concerned with some water build up in the corners of T 8. Mr Hall communicated his findings to the Chief Marshall who instructed flag marshals to remove the debris and water.

63. Following the incident, Mr Hall again walked along the track where Mr Harrison had travelled and noted that there was no debris or oil on the track at this location.

64. As race steward, Wayne Bradley had overall control of the race meeting including the power to alter or stop the race meeting (for example because of weather) and determine protests. According to his statement, he also had the responsibility for ensuring that the track and facilities complied with the relevant standards on the day[18]. He also drove around the track prior to the commencement of racing.

Subsequent Worksafe inspections

65. Two days after Mr Harrison died WorkSafe Inspector Peter Rennick inspected the track. The barrier extension had been put back into its pre-impact position. The extra bundles of tyres used to block off the short circuit were stored behind the barrier extension, as they were during Mr Harrison's race.

66. Mr Rennick later formed the opinion that because of its proximity to the short circuit track the tyre barrier may not comply with the Venue Standards and may pose a "serious risk to the health and safety of motorcycle riders" using the raceway.[19] On 23 February 2011, Mr Rennick again attended Winton. Mr Ronke informed him that '*the tyre barriers at the incident site*' were part of a movable barrier system used to block off the track when the long circuit was used[20]. Further, at the time of the incident, they were not serving any

[17] Statement of Peter Hall dated 5 February 2011.

[18] Statement of Wayne Ivan Bradley dated 5 February 2011.

[19] Statement of Peter Rennick dated 4 March 2011, page 7.

[20] Statement of Peter Rennick dated 4 March 2011, page 7.

purpose as the short circuit was in use. When Mr Rennick indicated he proposed to issue a Prohibition Notice preventing use of the short circuit whilst the tyres remained in that location, Mr Ronke immediately arranged for their removal. He made a telephone call and shortly after a front end loader arrived. It picked up the bundles of tyres forming the barrier extension and the bundles of tyres behind the barrier extension and moved them all behind the concrete wall. The whole process took five to six minutes.

67. Mr Rennick noticed a large volume of water coming from the tyres as they were being moved. Further, the ground underneath them was devoid of grass. He formed the opinion the tyres had not been moved for a considerable period of time.

Subsequent MA inspections

68. Mr Ronke advised Mr Rennick that in the future all the bundles of tyres would be stored behind the concrete wall during the short circuit. Subsequent MA venue inspections and licences required these tyres to be placed in front of the tyres protecting the concrete wall, not behind the concrete wall. The reason for this change was not evident, but appears to be of no significance. The end of the concrete wall closest to the short circuit was also required to be protected by tyres, which were now 7 to 8m from the marked track edge.

Weather conditions on the day of the race

69. Professor Grzebieta and Mr C Hall agreed that Mr Harrison's heavy braking whilst overtaking Mark McHenry caused the front wheel of his motorcycle to lock. This caused a loss of gyroscopic force, which caused Mr Harrison to lose balance and his motorcycle to fall. However, in his report Professor Grzebieta also opined that Mr Harrison may have experienced partial hydroplaning as a result of water build up on the track and that this may have led to his fall. Further, he was of the view that the wet conditions on the day were such that officials should have recognised the danger and cancelled the race. Mr C Hall disagreed with this analysis..

70. This issue can be disposed of simply.

- None of the track officials, nor it seems any race participant, considered the track too wet. Two riders gave evidence that they did not experience aquaplaning or have any concerns about the weather. The views of other riders are not known, but no rider raised a concern with any official after the morning riders' briefing.

- The anecdotal evidence was that riding in the wet was no more dangerous than riding in the dry because a rider would adjust his or her speed to the conditions. Although there was a greater chance of falling, the chance of injury was reduced because of increased slide (providing the rider did not hit anything).
- There was pooling in some recognised locations on the track, but there was no '*puddling of water*' on the back straight where Mr Harrison fell.[21]
- Video footage from Mr McHenry's camera shows that motorcycle wheels were leaving lines on the wet track as they raced down the back straight towards corner 10. These lines indicated there was water displacement and traction at this location. Mr McHenry and Mr Carbury confirmed that during the race tyres were leaving visible trails.
- The front forks of Mr Harrison's motorcycle dipped when he applied the brakes prior to falling, indicating his front wheel had gripped the track and was not aquaplaning.
- In evidence Professor Grzebieta readily accepted that aquaplaning did not play a part in Mr Harrison's fall given the facts.

71. In light of the above, I am satisfied that the conditions on the day were not too wet for Mr Harrison's race to proceed. Further, I am satisfied that Mr Harrison lost control of his motorcycle because he applied the brakes with too much force.

Position of the tyre barrier

72. The barrier extension had been in its position abutting the concrete wall since the track was extended in 1996[22]. It was not the barrier extension, but the bundles of tyres behind it, that were moved across the short circuit track when the long circuit was in use.

73. The evidence is that if the tyre barrier had not been there, Mr Harrison would have survived. Absent the tyre barrier, Mr Harrison and his motorcycle would have kept sliding at ever decreasing speed across the dirt and grass and then the road surface of Kitome Straight. Both Professor Grzebieta and Mr C Hall believed Mr Harrison would have survived in that scenario. The next barrier, a concrete wall, was over 50 m away. Based on a quick

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[21] Statement of Gregory McNaught dated 7 February 2011, page 3, Mr P Hall's evidence as outlined above, the evidence of Mr McHenry and Mr Carbury who reported that they did not encounter water build up on this section of the track during the race and the statement of the attending police officer Brendan Lynch .

[22] Statement of Michael Ronke dated 31 March 2011, page 3.

calculation whilst giving evidence, Professor Grzebieta thought Mr Harrison would have hit the concrete wall at a survivable speed of 20 – 30 kph, whilst Mr C Hall believed he would have stopped short of the wall.

74. The safety of motorcycle race participants depends upon their ability to slide after a fall. It is axiomatic that so far as possible a racing circuit should be free of solid objects into which a rider might collide. Put another way, all solid objects in the vicinity of the track are potential hazards. It is one thing if they serve a purpose and/or are fixed, it is another entirely if they serve no purpose and are easily moved.

75. There is no doubt the tyre barrier performed no function in the short circuit and that it could easily have been stored behind, or in front of, the concrete wall, as later occurred. The question arises why no-one identified it as a hazard prior to Mr Harrison's death.

76. Dr Neal, who appeared for MA during the Inquest argued that it was explicable that the tyre barrier had not been recognised as a hazard in the short circuit because it was on a straight and the circumstances of the collision were not reasonably foreseeable.

77. According to the expert, Mr C Hall, Mr Harrison's collision was the result of a confluence of unlikely circumstances and therefore had an extremely low probability of occurrence. In particular:

- The initial capsize had a very low probability being on the straight;
- It was unusual that Mr Harrison would fall to the left, rather than straight down or to the right in the direction of the upcoming corner; and
- It was unusual that Mr Harrison would follow the exact same trajectory as his motorcycle as usually there would be 1 to 2 degrees between them[23].

78. The consensus amongst riders and race officials was that the circumstances of Mr Harrison's fall on the straight were unusual[24]. Mr Ronke also agreed. Mr Allen said he was aware of only one previous incident where a rider had fallen in a straight and tipped outwards (away from the upcoming corner)[25]. In addition, the organisation RACESAFE[26] had collected limited data and produced a diagram featuring high incident zones for Winton that did not include the straight where Mr Harrison fell.

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[23] Evidence of Chris Hall.

24 Mr Carbury, Mr Bradley, Gregory McNaught (Chief Marshall) and Mr Allen.

[25] That was in Phillip Island 19 years ago.

[26] Described on its website as Australia's largest specialised motorsport medical and saferty sevice.

79. Professor Grzebieta was critical of the assertion that the circumstances of the collision (in particular the fall on the straight and to the left) were unusual in the absence of any independent research to support it.

80. The significance of Mr Harrison following the same path as his motorcycle is that he collided with his motorcycle and not the energy absorbing tyre barrier. It is possible Mr Harrison would have survived had he slid directly into the tyre barrier.

Did the tyre barrier comply with the Venue Standards?

81. The Venue Standards required the minimum width of a *verge* (defined as '[t]he area immediately between the *Track* and the *First Line of Protection'*) to be 5m except on straights *and* where available space is limited, in which case the width could be lowered to 3m. As there was no question of space being limited here, the relevant distance was 5m[27].

82. As the tyre barrier was only 0.7m from the marked track edge, it would appear to be in clear breach of the Venue Standards. However, the width of the track at this point was 13.6m rather than the usual 9m. This extra width was because the track edge curved inwards towards the barrier extension. Although some witnesses did not know the reason for the extra width of the track at this point, I accept that its purpose was to allow vehicles intending to make a pit stop to pull to the left and then enter Pit Return Lane.

83. Mr C Hall posited that given this extra width, the tyre barrier did not infringe the Venue Standards at all, as it was more than 5m away from the '*true track*'. Professor Grzebieta accepted this analysis and agreed that whilst there might have been a technical breach, there was no breach of '*the spirit*'.

84. Whether or not there was a breach of the Venue Standards is really a matter of construction, not expertise. The Venue Standards did not distinguish between '*true track*' and any other type of track. *Track* was simply defined as '*the paved or unpaved surface on which competition takes place*'. Further, the Venue Standards provided that '*both edges of the track must be clearly marked by a continuous white line of white anti-skid paint*'.

85. The track was not marked in any way to indicate that the extra width was to accommodate return to the pit. Accepting that the left hand side of the track proximate to the barrier extension was outside the normal race line, the white line at the edge of the track indicated

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[27] Mr Allen proposed that the exception of 3m applied in his second statement dated 4 July 2013, but conceded in evidence that there was no space limitation.

the whole track was available to riders at that point. Whilst ultimately I do not think it matters, I consider the tyre barrier was in breach of the Venue Standards.

86. In any event, the argument that the tyre barrier complied with the Venue Standards because of the width of the track at that point, is really an attempt at post event justification. No witness proffered this as a reason for not identifying the barrier as a concern at the time. There is no evidence that anyone reached that view, let alone considered the argument at the time. The evidence of what everyone did think about the tyre barrier is as follows.

The Riders

87. Mr Carbury had ridden at Winton 15 to 20 times and four times on the short circuit. He had never noticed the tyre barrier before.

88. Mr McHenry, on the other hand, had noticed the barrier and said:

> *'I don't think many riders like it there to be honest. Anything that's ah – anything that's solid is – it's always a good idea to be, you know, nowhere near it.'*[28]

However, he had never discussed the tyre barrier with officials. Nowadays he said he would do so.

Michael Ronke

89. In his statement Mr Ronke said:

> *'The reason why the barrier...was not moved prior to this was because no one had identified that it needed to be moved. If we had been informed that it was in non-compliance with Motorcycling Australia's Venue Standard or a potential risk to a motorcycle rider we would have moved it. I had never identified that it was an issue or that a motorcycle rider would have hit this barrier because it was on a straight and not in the racing line of this area of the circuit.'*[29]

90. He also stated that although he had obtained a copy of the Venue Standards he did not know if they were current and MA had never provided him with a copy. In essence, Mr Ronke relied upon the fact that the barrier had not been identified by any racing steward or during any MA inspection as a problem.

Peter Hall

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[28] Transcript page 19 – 20.

[29] Statement of Michael James Ronke dated 31 March 2011.

91. In his second statement dated 4 July 2013, Mr Hall said that he relied on the track being suitable for racing because it was licensed. In evidence, he confirmed his belief that compliance with the Venue Standards was the role of the venue inspector. At the time of Mr Harrison's death Mr Hall was a level 3 Clerk of Course and the Venue Standards had not been a part of his training. Since then he has become qualified as a level 4 Clerk of Course meaning he is licensed to officiate at interstate and national events. In the '*refresher training*' for level 4 he was advised that he had responsibility for ensuring compliance with the Venue Standards, yet as at the date of giving evidence he had still not read them.

92. Mr Hall had officiated at Winton on prior occasions. His inspection on the day consisted of driving around the track with Mr Bradley. In his second statement, he said he understood the tyre barrier involved in the incident was used to block part of the track when the long circuit was in use and that it was moveable. However, in evidence he admitted that he had not paid much attention to the tyre barrier. He had not noticed that in the short circuit the tyre barrier extended almost to the edge of the track. He had not realised that the tyres extended beyond the concrete wall. Nothing about it attracted his attention.

Wayne Bradley

93. In his second statement dated 7 July 2013 Mr Bradley stated:

> *'Motorcycling Australia does not have control over where tyre barriers are placed. It is the responsibility of the owner of the track.'*

94. In evidence Mr Bradley agreed that MA does have control when they do the track inspections and licences. He stated that as a steward he did assess the track, but at the time of Mr Harrison's death he had not read the Venue Standards. His opinion on whether the track was safe was based on his training and experience. Since Mr Harrison's death he has been upgraded to a level 4 steward and he has now read the Venue Standards but he also stated '*it's very hard to answer*' whether reading the Venue Standards is required. [30]

95. The tyre barrier had never occurred to him as an issue. However, he also agreed with the proposition that because it had been there so long he had not really turned his mind to it. Like Mr P Hall, he had not appreciated that the tyres extended beyond the concrete wall. He thought they were a protection for the wall.

Lyal Allen

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[30] Transcript page 72.

96. In a statement taken by Worksafe Inspector Mathew Read on 23 February 2011, Mr Allen said:

> *'When the track is used in its 2 kilometre configuration I believe that the tyre wall is left in the place it is depicted in Photograph Number 18*[31]*. I believe that the edge of the tyre wall to the edge of the track is approximately 2 metres when I took this photograph.*
>
> *I did not see this tyre wall as being an issue or in non-compliance with the Venue Standards when I inspected the track because it is a movable barrier and regularly moved by the race track. I have seen this wall moved so that there is a solid wall of tyres across the track preventing the track from being driven in a 2 kilometre configuration for 3 kilometre use. When the track is used in a 2 kilometre configuration the barriers are placed into the position they are depicted in this photograph.*
>
> *If this was a fixed barrier I would have completed a TRA [Targeted Risk Assessment] because the barrier would have been in non-compliance with the venue standards because it was within 5 m of the race track. ...*
>
> *With the benefit of hindsight I am now of the opinion that this tyre wall is in non compliance with the venue standards because it is within 5 m of the edge of the race track regardless of whether or not it is a fixed or movable tyre wall.'*

97. Mr Allen provided a supplementary statement through lawyers dated 4 July 2013 in which he further explained:

> *'the reason why the movable tyre barrier was not identified as a risk was because it can be moved. During a race the tyre barrier could be placed anywhere around the track. Therefore, I could not at the time of my inspection have assessed the risk the tyre barrier would pose during a race. If that tyre barrier been [sic] permanently placed where it was located, I would have identified the tyre barrier as a risk and I would have recorded this in the TRA.'*

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[31] Photograph 18 in the booklet of photographs taken by Mr Allen when he conducted his inspection on 14 April 2010 and shows the tyre barrier in the same position as it was when Mr Harrison died.

98. In evidence, Mr Allen said that he did not see the tyre barrier as a significant hazard '*from experience*'[32]. He maintained that he had previously seen the barrier picked up and moved by a tractor, although he did not remember the detail, for example whether it was only the rear row of tyres that were moved. He ultimately confirmed that at the time of his inspection he saw the whole tyre barrier '*as one full portable barrier which was – was movable*''[33] and therefore difficult to assess.

Law as to causation in the coronial context[34]

99. A determination of causation in the coronial jurisdiction is a question of fact, which should be made on a common sense basis. The fact that death would not have happened 'but for' a particular act or omission does not mean that act or omission is necessarily causative in a legal sense. If this were not the case many perfectly innocuous preceding acts or omissions would be considered causative even though on a common sense basis they could not be regarded as contributing to death. This is why it is usually required that an act or omission involve a departure from reasonable standards of behaviour or a recognised duty before it is regarded as contributing to death.

100. Although acts or omissions which attract a coronial finding of contribution will usually attract legal liability, this is not always the case. Causation is not limited to situations of civil or criminal liability. A person may have contributed to death in a causal sense, without any legal liability or moral reprobation, for example by killing someone in self-defence. A person may also have caused or contributed to death even though the death was not a reasonably foreseeable consequence of his or her conduct.

101. The standard of proof applicable to findings in the coronial jurisdiction is the balance of probabilities with the *Briginshaw* qualification[35]. A finding that a person has caused or

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[32] Transcript page 112, 120.

[33] Transcript page 127. At page 120 lines 14 and 15 the transcript incorrectly records 'immovable' instead of 'moveable'.

[34] The propositions articulated under this heading have been taken from *Chief Commissioner of Police v Hallenstein* [1996] 2 V.R. 1 and *Keown v Khan* [1999] 1 V.R. 69 which were decided under the Coroners Act 1985. That Act mandated a finding, if possible, of 'the identity of any person who contributed to death'. Notwithstanding the Coroners Act 2008 does not mandate such a finding, a Coroner should still examine whether any person contributed to the cause of death, see *Keown v Khan* [1999] 1 VR 69 at [16].

[35] *Briginshaw v Briginshaw* (1938) 60 C.L.R. 336 esp at 362 – 363. "The seriousness of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding, are considerations which must affect the answer to the question whether the issues had been proved to the reasonable satisfaction of the tribunal. In such matters "reasonable satisfaction" should not be produced by inexact proofs, indefinite testimony, or indirect inferences...."

contributed to death should not be made lightly and only after taking into account the possible damaging effect of such a finding upon the character and reputation of that person.

102. In assessing whether any person contributed to death, it is also necessary to be conscious of the benefit of hindsight. This proposition looms large in this case given the uniformity of evidence that no-one thought the barrier extension was a problem prior to Mr Harrison's death.

103. MA submitted that given no-one had previously identified the tyre barrier as a risk, that the fall happened on a straight and that there was a highly unlikely chain of events associated with the accident, it would be unreasonable to conclude that the risk was foreseeable or to criticise any individual for not identifying the risk.

104. The evidence indicates that the circumstances of Mr Harrison's fall and subsequent trajectory and collision were unusual and I accept that to be the case. However, as previously explained this Court is only concerned with causation, not civil liability and reasonable foreseeability is not determinative of causation. Rather, it marks the limits of civil liability once causation is established[36]. Further, the real question is not whether the precise events were foreseeable, but whether any risk of injury existed. The Venue Standards themselves, in providing for the minimum width of a verge, including on straights, clearly contemplated the possibility of accidents happening on straights. Finally, and in any event, the fact an event is unlikely, even extremely unlikely, does not mean the risk is not foreseeable.[37]

Conclusions as to the tyre barrier placement

105. It was apparent that the roles of the clerk of course and stewards in relation to ensuring track safety and compliance with the Venue Standards were not clearly defined or understood at the time of Mr Harrison's death, or even now. Given the existence of the venue inspection and licensing process, it is understandable that Mr Ronke, Mr P Hall and Mr Bradley relied on this process and did not themselves identify the tyre barrier as possibly contravening the Venue Standards and/or posing a potential hazard.

106. As venue inspector, Mr Allen's position was somewhat different. He had the primary responsibility for ensuring venue safety and compliance with the Venue Standards.

[36] *Chapman v Hearse* (1961) 106 CLR 112.

[37] *Wyong Shire Council v Shirt* (1980) 146 CLR 40 approved in *Koehler v Cerebos* (2005) 222 CLR 44.

According to Mr Allen '*we were taught that when risks have been identified we need to look at the likelihood and consequence of those risks occurring and determine whether the risks identified are able to be reduced through implementation of further actions in order to manage those risks.*'[38]

107. The dangers inherent in motorcycle racing demanded a rigorous approach to the task of venue inspecting. Mr Allen's Inspection Report strongly suggests that he only assessed the tyre barrier by reference to photographs *after* completing his inspection. The Report states '*Upon reviewing venue photos of the short track re-entry corner to Kitome Straight, after initially preparing the report, I noticed the position of the tyre barrier restricting access from vehicles running off T 10 to Kitome Straight...*' [39]. Further, the only photographs of the tyre barrier in the Report were taken at a point prior to the left hand turn at T 10 on the long circuit.

108. Notwithstanding the Report, in evidence Mr Allen said that he did drive along the short circuit to the re-entry with Kitome Straight and back again. If so, he would have driven past the tyre barrier.

109. Mr Allen's stated reason for not conducting a risk assessment of the tyre barrier was that he believed it was regularly moved and therefore could not be assessed. The logic of this argument is difficult to follow as there would have been nothing to prevent Mr Allen imposing a condition on the licence as to placement of the tyre barrier when the short circuit was in use. Mr Allen concedes that this could have been done in his first statement.

110. Further, the assertion in his second statement that the tyre barrier '*could be placed anywhere around the track*' appears inconsistent with his first statement that during short circuit races the tyre barrier was '*placed into the position ... depicted in this photograph*'.

111. Moreover, to the extent Mr Allen was asserting that he had seen the whole tyre barrier (including the barrier extension) moved, he cannot be correct. Presumably he, like Mr P Hall, was thinking of the extra bundles of tyres stored behind the barrier extension and which, during long circuit use, were moved to create a continuous tyre barrier across the short circuit.

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[38] Statement dated 4 July 2013.

[39] At [13].

112. Mr Allen's misunderstanding of the nature of the tyre barrier does not explain why he could not assess its risk, but it does demonstrate how little attention he paid to it. If Mr Allen had inspected the tyre barrier or spoken to Mr Ronke about it, he would have realised that the barrier extension was effectively a fixture and that it was only 0.7m from the marked track edge (not 2m as he estimated). Insistence on the provision of a speed diagram (with all barriers, obstacles and track edges marked) may also have served to draw Mr Allen's attention to the superfluous and ostensibly non-conforming nature of the barrier.

113. Although qualifying it with the phrase *'[w]ith the benefit of hindsight'*, Mr Allen acknowledged in his first statement that the proximity of the tyre barrier to the marked track edge was in contravention of the Venue Standards and should have caused him to perform a targeted risk assessment (TRA). Even though he would have assessed the likelihood of an event causing injury as *'rare'*, he still would have required the removal of the tyre barrier as soon as possible.

114. The argument later advanced by Mr C Hall as to *true track* did not occur to Mr Allen either at the time of his assessment, or when he made his first and second statements[40]. If he had given the tyre barrier that level of consideration, then it may have occurred to him to require its removal whether or not he determined it complied with the Venue Standards. Given the tyre barrier was close to the track, had no function in the short circuit and was easily moved, the only reasonable response would have been to require its removal. This is a matter of simple common sense. No matter how small the risk of injury was, it was a risk that was completely avoidable and simply avoided.

115. Had Mr Allen recognised the tyre barrier as a potential risk and required it to be placed elsewhere during short circuit races, I am satisfied that Mr Harrison's death could have been prevented.

116. The issue with the tyre barrier only arose because Winton was a dual configuration circuit and needed to have barriers suitable for each configuration. Further, the dual circuit nature may have contributed to a failure to identify an issue specific to one configuration only. In this regard, it is notable that no previous MA venue inspectors or officials had identified an issue with the tyre barrier since its placement in 1996.

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[40] In fact his second statement specifically contradicts that argument at [6.6].

FINDINGS

117. I find that Philip David Harrison died on 5 February 2011 from multiple injuries sustained after he fell from his motorcycle and collided with his motorcycle and a tyre barrier during a race at Winton Motor Raceway, 41 Fox Street Winton.

118. I find that rider error was the cause of Mr Harrison's fall from his motorcycle.

119. I find that Mr Harrison's death could have been prevented if a condition had been imposed on Winton's venue licence requiring the tyre barrier to be placed behind or in front of the concrete wall during short circuit races.

COMMENTS

Pursuant to section 67(3) of the Coroners Act 2008, I make the following comment(s) connected with the death:

1. MA relies on volunteers to perform venue inspections and to officiate at events. In the sport of motorcycle racing lives are at stake. It is important that these volunteers perform their tasks with the utmost diligence. Submissions filed on behalf of MA indicated that *'[p]artly as a result of ageing and partly as a result of this incident, Motorcycling Australia is struggling to find volunteers willing to take on these heavy responsibilities.'* This is unfortunate, but understandable. It may be that it is time for MA to consider paying independent appropriately qualified personnel to perform these tasks, particularly venue inspection.

2. The Venue Standards was a confusing document. The Track Guidelines which have replaced the Venue Standards do not remedy some of the areas of concern arising from this case. In particular:

    - There should be a specific requirement that any object not performing a function should not be permitted in the vicinity of the track, whether or not it is within the verge.
    - The challenges potentially posed by dual configuration tracks should be addressed.
    - The alignment of barriers adjacent to straights and the need for any such barriers to be angled to the straight should be covered.[41]
    - The roles and responsibilities of the various MA officials should be clarified.

[41] Refer Mr C Hall's recommendation at paragraph 13.7 of his report.

4. Professor Grzebieta's main complaint about the Venue Standards was the lack of scientific research underpinning them. He was also concerned about the subjective assessment of risk by MA officials. It was obvious during the Inquest that there was a heavy reliance on personal experience in assessing the likelihood of risk. Professor Grzebieta called for an independent review of racing standards such as is currently occurring in South Australia in relation to go-cart racing. Mr C Hall indicated that a review by Standards Australia of motorcycle racing standards had previously been attempted and failed.

5. MA's submissions as to possible improvements in the processes for training of race officials, the production of improved track guidelines and improved safety measures were very helpful. If the recommendations MA proposes (and which I gratefully adopt in this finding) are implemented, I accept MA's submission that MA is best placed to develop any future track guidelines with input from external experts. I therefore do not propose to make any recommendations in relation to the development of Australian Standards.

RECOMMENDATIONS

Pursuant to section 72(2) of the Coroners Act 2008, I make the following recommendation(s) connected with the death:

The following recommendations have been adopted in their entirety from the submissions filed on behalf of MA in this case.

1. Motorcycling Australia should revise the current edition of the Track Guidelines (1st Edition - January 2012).

2. The committee revising the guidelines should include a person who is an expert in drafting standards documents. This person might be someone who has previously worked for Standards Australia or some person with expertise in drafting technical manuals.

3. Prior to issuing the new Track Guidelines Motorcycling Australia ought to obtain a peer review from an independent reviewer with recognised expertise in safety measures for motorsport venues.

4. The guidelines should contain the relevant technical information for those charged with licensing venues.

5. The guidelines should be written so that they are readily comprehensible to race officials who conduct venue checks prior to race meetings.

6. Licensing officials and race state officials responsible for checking venues prior to a race meeting should have a kit which includes:

   i. a copy of the Track Guidelines;

   ii. a copy of the track licensing conditions applicable to the particular venue;

   iii. checklist sheets generated for the particular venue and for the particular configuration of the venue;

   iv. contact details to enable the officials to readily obtain assistance in relation to any queries pertaining to the conditions applicable to the track or other issues which may arise in the field.

7. Risk assessment documents and venue checklist documents should include the following question:

   Are there any obstructions in the vicinity of the race which are not essential to the proper functioning of the race track?

8. Motorcycling Australia should compile a database of accidents, injuries and near misses (to be defined) occurring during any race meeting. The data is to be collected from reports filed by race officials after each event. The data should be analysed periodically to identify systemic problems at venues. This process should be developed in association with the medical data currently collected by RACESAFE.

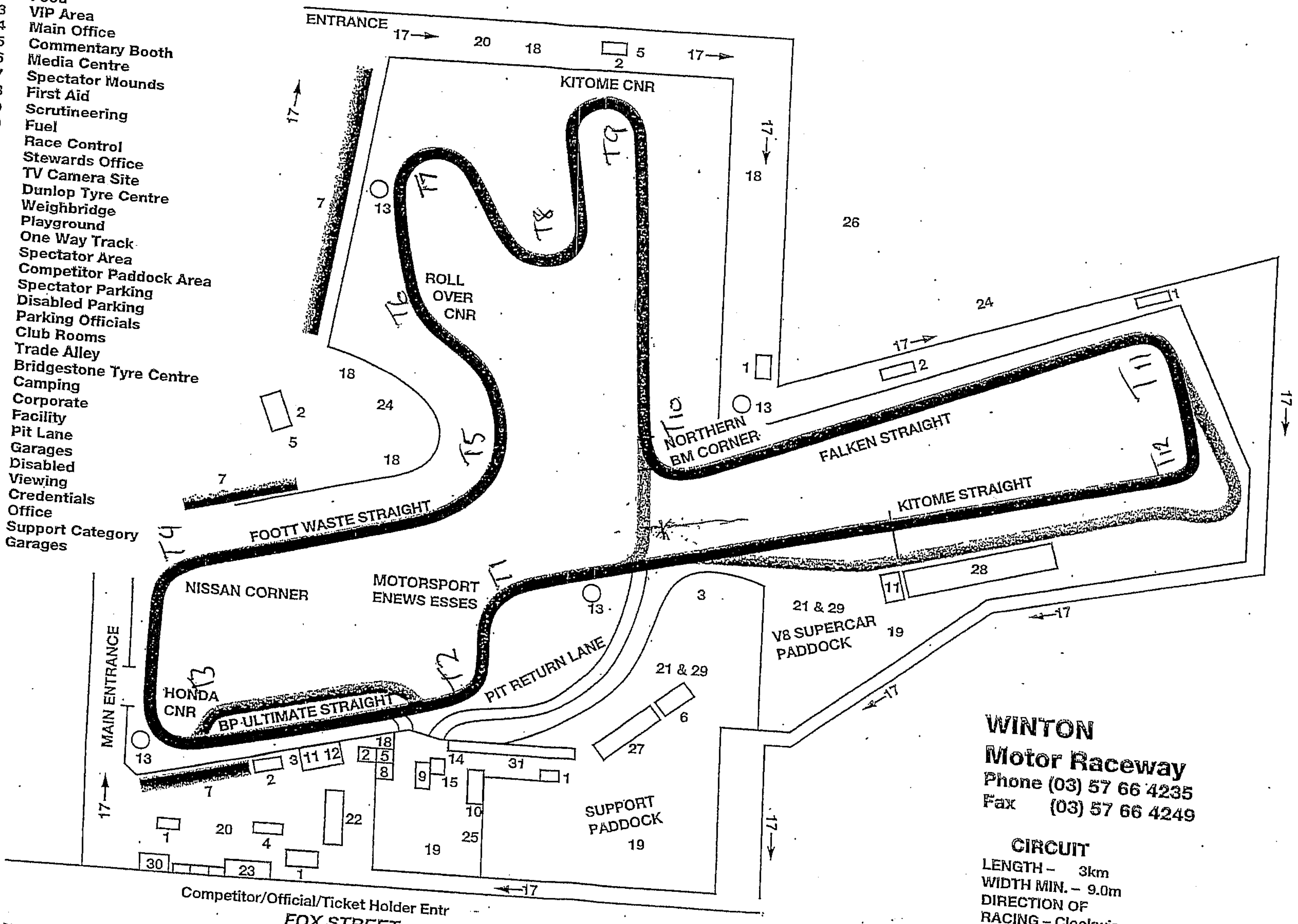
I direct that a copy of this finding be provided to the following:

The family of Philip Harrison;
Motorcycle Australia;
Winton Motor Raceway Pty Ltd;
RACESAFE;
Professor Grzebieta;
Standards Australia; and
The Investigating Member, Victoria Police.

Signature:

ROSEMARY CARLIN
CORONER
Date:

"A"



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