

IN THE MATTER OF

THE 2009 VICTORIAN BUSHFIRES ROYAL COMMISSION

AND IN THE MATTER OF

THE KILMORE BUSHFIRE OF 7 FEBRUARY 2009

**Submissions on behalf of Utility Asset Management (“UAM”)
Kilmore East Fire**

Findings

- 1) The Royal Commission’s task includes inquiring into and reporting on:

“The causes and circumstances of the bushfires which burned in various parts of Victoria in late January and in February 2009 (“2009 Bushfires”).”

- 2) In making findings in respect of the causes and circumstances of the 2009 Bushfires, the Commissioners should be satisfied of the facts that support those findings to the ‘Briginshaw’ standard¹.

“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 issue has 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 references.”²

- 3) Counsel Assisting, in their submissions, make allegations of wrongdoing, which are serious in nature. Grave consequences may flow from particular findings. The consequences of the Kilmore bushfire were devastating in their impact on human life and property.

¹ Briginshaw v Briginshaw (1938) 60 CLR 336

² *ibid* per Dixon J at 361-362

- 4) Given the:
- a) serious nature of the allegations and the grave consequences which may flow from findings to be made;
 - b) scope of the terms of reference;
 - c) state of the evidence as demonstrated in the analysis below, in particular;
 - i) the speculative nature of much of the evidence, and
 - ii) the timeframe in which it has had to be considered (this issue is dealt with in detail at paragraphs 10 to 18 of these submissions),

the Commissioners should decline to make findings in respect of the specific failure mechanism of the conductor. For the purpose of the Royal Commission's terms of reference, it is unnecessary to do so. The Royal Commission has an obligation to make recommendations for the future safety of the community. In discharging that obligation, it is sufficient to find that the conductor failed in the vicinity of pole 39 on the Pentadeen Spur Line and fell to the ground leading to the ignition of the fire. Such a finding does not prevent the Royal Commission from making recommendations in relation to the systemic issues, which may be necessary to support change for the protection of the community in the future.

- 5) There is no justification for the findings urged by Counsel Assisting to be made regarding Jason Leech's inspection of pole 39³. The findings urged by Counsel Assisting are inconsistent with the evidence.
- 6) The evidence supports the inference that the helical misalignment was not visible and capable of being seen upon routine inspection. Consistent with the evidence, the Commissioners should make that finding.

³ SUBM.202.004.0033 para 11.20 and 11.21

Causation – the misaligned helical termination

- 7) On the evidence before the Royal Commission, the Commissioners could not be satisfied, either to the Briginshaw standard or on the balance of probabilities, of a causal relationship between the misaligned helical termination in the clevis and thimble assembly (“the helical misalignment”) and the failure of the conductor.
- 8) The findings of HRL are speculative and not based on the results of scientific testing and analysis:
- a) no test has been done to determine the role, if any, played by the helical misalignment⁴;
 - b) Mr. Better gave evidence that there is a test that can be done to measure the effect, if any, of the helical misalignment, but his view was “*It would take a lot of work and a lot of time to do*”;⁵
 - c) there are tests that could be done that would indicate the effect of the helical misalignment on the vibration, but that were not done⁶;
- “...no one had bothered to go and connect it [the helical termination] up to the pole to represent the realistic behavior at the pole; nor had anybody bothered to go and do a test to work out, and it would have been easily done, what the effect of taking the wrap out and locking it into the thimble has upon the stresses at the end of the wrap. There is a whole variety of things. The report you are referring to [the HRL report] is just merely conjecture. There is no experimental evidence to back it up.”⁷;*
- d) Mr. Better’s conclusion that the helical misalignment had a part to play was simply a belief or impression based on “*My experience*”⁸.

⁴ Better T11351:10-16

⁵ Better T11351:17-20

⁶ Better T11351:10-20

⁷ Jones T11837:3-11, T11844:15-31- T11845:1-7

⁸ Better T11351:21-24

9) There is no proper factual basis from which to infer that the helical misalignment had any causal connection to the conductor failure;

a) The point at which the helical wrap ends is a stress concentration point. Mr. Better's evidence in relation to that part of the conductor where the helical termination ends (and where the first fracture occurred) is that:

*"...any change of section is change in stiffness and consequently a stress concentration point."*⁹ The helical is a constraint.¹⁰

b) The amount of stress depends on the stiffness at the end of the helical termination. In relation to "bending" of the conductor, Mr. Better said:

*"...the standing wave produces a bending in the conductor itself. How much stress occurs is then dependent on the stiffness of the ends, particularly at the end connections."*¹¹

c) Mr. Better acknowledged the view¹² that there is flexibility in the helical termination attachment to the pole, although he was of the opinion that it's flexibility was restricted when under tension¹³.

d) Professor Rhys Jones was of the opinion that the helical termination assembly provides flexibility.

"...you've got a lot of things that contribute to the freedoms of that end...So the thimble comes here. Then it connects through to a socket thimble, which can rotate about the axis of the conductor wire. Then there are two disc insulators, both of which can rotate about the axis of the wire. Then it is connected through to a hook and an eye back at the pole. That hook and eye can rotate that way and rotate that way. So the mere fact that this has come off and at the worst case locked itself in the thimble, I'm not sure that that has

⁹ Better T11328:13-14

¹⁰ Better T11353:23

¹¹ Better T11328:21-24

¹² also expressed by Adams T12239:1-8 and Lane T11152-T11153

¹³ Better T11315:5-17

much effect upon the degree of freedom of that end of the strain insulator.”¹⁴

- e) No assessment of the flexibility of the universal joints under tension has been undertaken. No assessment or measurement of the stress on the fracture site has been undertaken. No comparison of the amount of stress present where the helical termination is properly seated in the clevis and thimble assembly as opposed to where the helical termination is misaligned has been undertaken.
- f) There is no evidence as to how or in what way or to what degree (assuming any effect at all) the stress at the fracture point was, in fact, altered or increased by virtue of the helical misalignment.
- g) On a proper analysis, the evidence given by Mr. Better goes no further than an assertion that the helical misalignment could, in Mr. Better’s opinion, change the end condition of the helical wrap leading to increased vibration¹⁵.
- h) In cross examination, the following proposition was put to Mr. Better, to which he agreed:

*“...the highest you can put it is that the incorrect positioning of the helical termination and the vibration due to the absence of dampers could have led to increased vibration and could have led to increased cyclic stressing?---
Yes”¹⁶*

- i) Further, according to Mr. Better, the indentation in the conductor at the fracture sites was critical and the formation of the white layer was most likely critical in the conductor fracture and failure.¹⁷
- j) Mr. Better said that further work needs to be done before a determination can be made as to the cause of the depression and white layer.

“It [lightning] is still a possibility, but it is something, which we can’t put our

¹⁴ Jones T11834:27-T11835:9

¹⁵ Better T11315:16-25

¹⁶ Better T11337:22-26

¹⁷ Better T11338:18-20 and T11339:26-27

fingers on. There hasn't been enough work done from the fretting point of view to also determine 100 per cent that that's the case."¹⁸

k) In relation to the white layer, Mr. Better said:

*"I have not really observed this white layer [before]. It is a puzzling layer."*¹⁹

l) In relation to fatigue failures:

*"...you have a whole range of variables which need to come together for it to actually collapse... So it is a number of variables that need to come together for the failure to exist"*²⁰

m) There is no proper factual basis from which to infer that the helical misalignment was a variable that had any causal connection to the conductor failure, as opposed to, for example, a **possible** factor that **could** have led to increased vibration, but insufficient to cause, or otherwise not causative of the conductor failure.

n) It would be flawed logic to conclude that the helical misalignment must be causally related to the conductor failure because it was there and it was something that wasn't the way it should have been.

o) The helical misalignment may have existed since the line was constructed²¹, probably in 1966²². Mr. Better could not put a time or date onto when the helical misalignment occurred²³, however, it had been there for quite a considerable time²⁴.

p) The likely length of time for which the helical misalignment was present is relevant first, to whether it could be seen upon inspection²⁵. Secondly, it

¹⁸ Better T11314 :4-7, also that it required a lot more investigation and testing to determine the cause of the indentation and the formation of the white layer T 11343:9-12, T11307:20-21

¹⁹ Better T11339:23-24

²⁰ Better T11338:20-27

²¹ Better T11301:3-4

²² Leahy T11006:15-18

²³ Better T11301:11-12

²⁴ Better T11300:6-7

²⁵ This topic is dealt with in paragraphs 19 to 24 of these submissions.

further brings into question the helical misalignment's role as a causative factor in the conductor failure. The evidence of Mr. Braden²⁶ and Mr McCrohan that, if seen, the helical misalignment would be reported as a priority 2 defect,

*"The priority would have been given a 180-day priority. That's for someone to go out there, reassess it and correct it."*²⁷

is action consistent with a fault that is not associated with, or causative of conductor failure.

- q) The likely length of time for which the helical misalignment was present confirms that it ought not be regarded as a priority 1 defect, as asserted by Mr. Barnbrook, requiring immediate attention²⁸.

Manageability issues and extent of the investigation

- 10) Given the time frame in which the Royal Commission must complete its inquiry, there are necessarily limits on the extent and thoroughness of the investigation and the ability of the parties to consider, evaluate and be independently advised in respect of the expert material presented.
- 11) The HRL material was served on the parties on the evening of 4 November 09, 7 clear days only before the Royal Commission's hearings into the Kilmore East fire commenced.
- 12) SP AusNet had the benefit of Prof Rhys Jones' presence during the work conducted by HRL, and his preliminary views and opinions²⁹. After further consideration and testing conducted by Prof Jones, at the time he gave evidence to the Royal Commission, Prof Jones expressed serious concerns regarding the conclusions reached by HRL and was, in many respects, at odds with HRL.

²⁶ Braden T12319:18-22

²⁷ McCrohan T11498:6-9

²⁸ Barnbrook T11182:27-31

²⁹ Prof Jones gave evidence that the report tendered in the Royal Commission was an interim report and that at the time of writing, he had not formed concluded views T11767-11769

- 13) Prof Rhys Jones is a highly qualified professor of Engineering at Monash University with his specialty being metal fatigue and fracture³⁰. UAM has not, however, had sufficient opportunity to evaluate the opinions and conclusions expressed by HRL and Prof Rhys Jones, to seek its own independent expert advice and conduct its own tests, should it be so advised.
- 14) The existence of the differences of expert opinion, and Mr. Better's concessions that:
- a) in respect of a critical factor in the conductor failure, not enough work has yet been done³¹; and
 - b) in respect of the helical misalignment, there are further tests that could be done but haven't been done³²;

the Commissioners should be concerned that there is insufficient scientific evidence which has been properly tested and evaluated before them from which detailed findings in respect of causation could be made.

- 15) The Commissioners should not dismiss Professor Rhys Jones's concerns and opinions in the way urged by Counsel Assisting in their submissions³³. The criticisms of Prof. Jones made by Counsel Assisting are, on analysis, overstated and unfair.
- a) Counsel Assisting criticized the substance of Professor Jones' evidence "*...and his heavy reliance on the testing he organized to be conducted by others.*"³⁴ Professor Jones organized for the testing to be done because HRL would not do it upon his request. Mr. Better was aware of the test and said:

"We did not put it on a list where we said "We will ask the University", so we had him ask the University to perform it."³⁵

³⁰ Jones T11840-11842

³¹ para 9j above

³² para 8 above

³³ SUBM.202.004.0030 para 8.26

³⁴ SUBM.202.004.0030 para 8.24

³⁵ Better T11350:14-16

- b) Trevor Layzell from HRL was present during the testing.³⁶ Although Counsel Assisting does not articulate what it is about the fact that the actual test was carried out by Mr. Birbilis at the request of Prof Jones that makes it unreliable, it is clear that the test was conducted by Mr. Birbilis because he had the machine capable of conducting the test³⁷ and HRL did not³⁸. The fact that the test was conducted by Mr. Birbilis does not impugn the results, or Prof. Jones' analysis of the results.
- c) The technique used by Prof. Jones is taught at the graduate level at Monash University³⁹. Counsel Assisting's criticism that Mr. Jones "*...provided incorrect references in support of the testing technique*"⁴⁰ is a reference to one minor typographical error in a footnote that was accepted and amended by Prof. Jones⁴¹.
- d) Counsel Assisting criticised Prof Jones for relying on a paper which, Counsel Assisting said, undermines the appropriateness of the technique of testing he propounded⁴². Prof Jones stated that the particular paper referred to by Counsel Assisting was relied upon by him in support of a different proposition, and that on the question raised by Counsel Assisting, further work had been done in that field since the publication of the paper⁴³.
- e) The capacity of the testing technique used by Prof. Jones to determine whether a failure was due to fatigue was accepted by Mr. Better:

*"...It is a tool which is used in determining whether the failure was due to fatigue. It looks at the surfaces that can help determine – fatigue sometimes is extremely difficult, extremely difficult to identify. We might be positive, nearly positive, that it is fatigue, but you can't really say 100 per cent."*⁴⁴

³⁶ Jones T11772:21-24

³⁷ Jones T11846:3-13

³⁸ Jones T11349:31

³⁹ Jones T11772:15-16

⁴⁰ SUBM.202.004.0030 para 8.25

⁴¹ Jones T11822:19-21

⁴² *ibid* para 8.26

⁴³ Jones T11823:17-T11824:14

⁴⁴ Better T11349:23-29

- f) In respect of the existence of a standard for the testing techniques relied upon, Prof Jones did not say that there was no British or ATSM standard for the testing techniques relied upon, rather, he was not aware of one⁴⁵.

The seat of the fire

- 16) During the hearing, evidence emerged in respect of the origin of the fire and the ignition mechanism of the fire, which raises questions about the findings urged by Counsel Assisting⁴⁶. In the time available between service and calling of the evidence at the Royal Commission, parties have been unable properly to explore alternative theories concerning the origin of the fire.

Expert Evidence

- 17) In relation to the expert evidence called before the Royal Commission, there is a real risk that conclusions have been drawn too readily, and which have driven the reasoning process, in some cases without scientific foundation. Manageability issues have placed constraints on both the extent of the investigation and the opportunity for the parties thoroughly to evaluate the expert material.
- 18) There is sufficient evidence, for the purpose of addressing properly, the Commission's terms of reference, to make the findings urged in paragraphs 4 to 6 of these submissions. There is no sufficient scientific or other basis to make the findings urged by Counsel Assisting.

Detection of the misaligned helical termination

- 19) The Commission could not be comfortably satisfied based on clear evidence (or even on the balance of probabilities) that the helical misalignment was visible to Jason Leech in February 2008, and therefore could have been detected by him upon inspection.
- 20) Mr. Better's opinion that the helical misalignment should have been observed on inspection should not carry any weight. Although a highly qualified and

⁴⁵ Jones T11825:11-13

⁴⁶ See Jackson T10938:22-24, T10939, Exhibits 511.0001 and 511.0002. See also Sweeting T11377:14-25

experienced mechanical engineer, Mr. Better is not⁴⁷, and does not “...*profess to be an expert in inspections.*”⁴⁸ Mr. Better’s opinion that a trained inspector should have observed the defect is based on a false assumption. Mr. Better said:

*“You can argue that, yes, I knew what to look for and looked at it. However, a trained inspector would also know exactly what he has to look for, and this would be one of those types of things that he has to look for.”*⁴⁹

21) In fact, the evidence is to the contrary:

- a) the helical misalignment was not a known industry potential problem.
 - i) Mr. Kazenwadel, a linesman with SP AusNet since about 1993⁵⁰ had never seen it in the field. Mr. Brauman, who commenced work with the SEC in 1972⁵¹ had never come across that situation before on a conductor that’s in service.⁵²
 - ii) Mr. Braden, who has extensive experience in the training of asset inspectors throughout Australia, was not aware, nor had he been made aware by any distribution businesses that this was a potential failure mechanism⁵³. He was not aware of any industry knowledge, which suggests that this has ever been a potential problem area.⁵⁴
 - iii) it is an extremely uncommon fault⁵⁵;
 - iv) there is nothing in the SP AusNet manual regarding the clevis and thimble assembly and this is consistent with the manuals used to instruct asset inspectors by other distribution companies. None of the manuals deal with the identification of faults or defects associated with the alignment of

⁴⁷ Better CV VPO.001.039.0129-0131

⁴⁸ Better T11334:23

⁴⁹ Better T11320:2-6

⁵⁰ Kazenwadel T11041:3-4

⁵¹ Brauman T11028:11

⁵² Brauman T11034:22

⁵³ Braden T12306:17-18

⁵⁴ Braden’s statement WIT.7531.001.0005 para 34, T12317:23-27

⁵⁵ Braden T12305:24

the helical termination in the thimble and clevis unit⁵⁶;

v) According to Mr. Barnbrook, it is a “fairly rare occurrence”⁵⁷, and given “the rarity of it, no-one would actually see it as significant, no...as in occurring frequently”⁵⁸. Mr. Barnbrook agreed that the line inspection manual, to which he contributed⁵⁹, dealt with issues for line inspectors that were regarded as being significant⁶⁰. The SEC Line Inspection Manual became the SP AusNet Line Inspection Manual and “although there are minor changes to the document, the integrity of the document remains unchanged.”⁶¹ The particular issue of the helical misalignment is not drawn to a line inspector’s attention in the manual;

vi) Mr. Barnbrook was of the opinion that an asset inspector would need to be specifically trained to recognize this:

“Yes, someone would need to be trained to recognize this and have an understanding of the concept of metal fatigue.”⁶²

vii) There is no specific code in the line inspection manual to identify an incorrectly fitted pole attachment. Mr. Barnbrook agreed that the inspection process would benefit from a specific alert to incorrectly fitted pole attachments⁶³;

viii) Asset inspectors taught by Mr. Braden are given a proper basis on which to undertake their task, a basis which has been reviewed and approved by SP AusNet and others in the industry. Full submissions on the nature and adequacy of the training and inspection regime will be made in response to Counsel Assisting’s submissions on electricity systemic issues, as foreshadowed in Counsel Assisting’s submissions⁶⁴. However,

⁵⁶ Braden’s statement WIT.7531.001.0004 para 33

⁵⁷ Barnbrook T11185:14

⁵⁸ Barnbrook T11249:29-30 – T11250:1-2

⁵⁹ Barnbrook VPO.001.031.0343 page 1 “During this time, John and I produced the ‘SEC Line Inspection Manual...’”

⁶⁰ Barnbrook T11241-11242

⁶¹ Barnbrook VPO.001.031.0345

⁶² Barnbrook T11183:5-7

⁶³ Barnbrook T11189:19-25

⁶⁴ SUBM.202.004.0031 para 9.2

for present purposes, the following points are relevant:

- The training syllabus, originally developed by Dennis Clarke, principal author of the SEC Line Inspection Manual⁶⁵ was approved by John Costolloe, fellow principal author of the Line Inspection Manual, on behalf of SP AusNet⁶⁶. Mr. Costolloe ensures that the training provided to UAM employees is up to SP AusNet standards⁶⁷;
- UAM provides SP AusNet with up to date information on training provided by UAM to its employees and SP AusNet is provided with copies of all inspector's training records upon request⁶⁸. At 3-6 month intervals, work group meetings are held at UAM. SP AusNet representatives frequently attend if they have any issues to raise with line inspectors.⁶⁹ Monthly management meetings are also held between UAM and SP AusNet⁷⁰;
- In 2006, Mr. Barnbrook attended the UAM office and looked at the course content, discussing the theory side of things with Mr. Braden, but also the practical process out in the field⁷¹. This was for the purpose of Gipps Tafe certifying two Actew AGL trainees, who completed the same training course as that completed by UAM trainees⁷². The review of the training course by Mr. Barnbrook enabled a representative of Gipps Tafe to sign certificates for the two Actew AGL employees, thereby endorsing the training package⁷³;
- Asset inspectors are taught about known faults. This now known fault will be incorporated into the training of asset inspectors.⁷⁴

⁶⁵ Braden's statement WIT.7531.001.0001 para 6 and WIT.7531.001.0004 para 23-24

⁶⁶ Braden T12302:3-13.

⁶⁷ McCrohan T11476:23-28

⁶⁸ Ying WIT.7526.002.0003 para 12

⁶⁹ Ying WIT.7526.002.0004 para 17

⁷⁰ Ying WIT.7526.002.0006 para 28

⁷¹ Braden T12316:1-9

⁷² Braden T1231512-26

⁷³ Braden T12315:20-27

⁷⁴ Braden T12321:15-24

- 22) The better inference to be drawn from the evidence is that the helical misalignment could not, in all likelihood, be seen upon routine inspection:
- a) although the helical termination was not in the thimble, if it was still straight when coming out of the thimble, there may be no sign to an inspector that it is out of the thimble⁷⁵;
 - b) if the misaligned helical termination was on the top side, with the bottom side going through, then an asset inspector wouldn't see it from the ground⁷⁶;
 - c) although Mr. McCrohan would initially have thought that a misaligned helical termination in the thimble could be seen upon inspection, upon seeing a photograph of the reconstruction, his view was "*Someone on the ground could miss that.*"⁷⁷
 - d) there is no evidence of the orientation of the helical termination as it exited the thimble and clevis unit on the day Jason Leech inspected it in February 2008. No inference can be drawn from the photographs of the thimble and clevis assembly lying on the ground as to the orientation of the helical termination when under tension, as the unit has clearly fallen from height and been impacted;
 - e) It cannot be excluded that the misaligned helical termination at pole 39 was oriented in such a way that it simply could not be seen from the ground. That it was so oriented is supported by the following:
 - i) The helical misalignment could have been there from the time the line was constructed⁷⁸. The indications are that the misaligned helical termination had been there for quite a considerable time⁷⁹. Mr. Better could not put a time or date onto when the helical misalignment occurred⁸⁰, although it may have occurred at a time of re-sagging.

⁷⁵ Braden T12306:8-12

⁷⁶ Braden T12319:13-15. See also Leech T11426:1-14

⁷⁷ McCrohan T11511:2-6

⁷⁸ Better T11301:3-4

⁷⁹ Better T11300:6-7

⁸⁰ Better T11301:5-15

- ii) There is no evidence that the conductor was re-sagged. The question as to when the helical termination became misaligned is therefore unanswered, but it cannot be excluded that it occurred upon the conductor being initially constructed;
- iii) The evidence is that the line was probably constructed in 1966⁸¹. Mr. Barnbrook agreed that given an inspection regime of inspection every 3 years, and then 5 years, there were many opportunities for inspectors to pick up the helical misalignment, were it visible⁸². There is no evidence that the helical misalignment was seen or reported on any of those inspections;
- iv) Had the helical misalignment been capable of being seen, it most certainly would have been seen, reported and rectified by Mr. Barnbrook:
- Mr. Barnbrook inspected that very conductor and helical termination after the 1983 bushfires. He was in charge of a service crew ascertaining the correct status of the assets in that area⁸³;
 - he was chosen to undertake that inspection *"...because of my dedication to tasks. So a fairly intensive process of going through every single pole in particular regions at that time. Everything had to be done. I was aware of the responsibility on me. So everything was actually carried out as per the audit requirements...So it was a fairly intensive, precise audit."*⁸⁴
 - Although Mr. Barnbrook had seen 3 instances of a misaligned helical termination on a thimble during the course of his career (one of which he created⁸⁵), none had ever being picked up as part of the inspection process. They were detected during the course of work being done on the line⁸⁶.

⁸¹ Leahy T11006:16-18

⁸² Barnbrook T11248:2-8

⁸³ Barnbrook T11167:7-13

⁸⁴ Barnbrook T11191:3-13

⁸⁵ Barnbrook T11185:6

⁸⁶ Barnbrook T11186:14-17

- Mr. Barnbrook accepted two alternatives. One was that the fault existed at the time he inspected pole 39, and he missed it, the other was that it was not there⁸⁷. There is no evidence of the line having been re-sagged after Mr. Barnbrook's inspection.
- v) In the absence of evidence as to when the helical misalignment occurred, it would be flawed and unfair reasoning to say that Mr. Barnbrook's failure to identify the helical misalignment upon his intensive inspection after the 1983 bushfires, must have meant it was not there, but then to say in respect of Mr. Leech, his failure to identify the helical misalignment was because of a defective inspection.
- vi) On all of the evidence, the inference should be drawn that the helical misalignment was simply not visible upon inspection.

The reconstruction

23) No weight should be given to opinions expressed as to the visibility of the helical misalignment at pole 39 upon inspection in February 2008, based on observations of the reconstruction:

- a) there is no evidence of the orientation of the helical misalignment on the day of the inspection in February 2008. The best the reconstruction can be is a "guess" as to how it may have looked during the inspection;
- b) there is no evidence as to the environmental factors influencing visibility during the inspection in February 2008. The reconstruction was carried out in a controlled environment without the environmental factors influencing visibility during the inspection in February 2008;
- c) those performing the reconstruction and their observations and opinions expressed are heavily influenced by the knowledge of what they are looking for. The reconstruction provides so little evidential value as to what an inspector:

⁸⁷ Barnbrook T11247: 18-31

- i) in a different environment;
- ii) on a different day;
- iii) looking at a different piece of equipment;
- iv) oriented in a way that is unknown

should or should not have been able to identify, so as to render any opinions expressed or inferences drawn from the reconstruction, of no assistance.

24) No allegation or assertion is made by Counsel Assisting that there was any other visible indication of a causative fault, such as a broken and therefore protruding strand or a missing strand of the conductor, that ought to have been detected by Mr. Leech upon inspection. The evidence could not and does not support any such assertion.

- a) Mr. Better could not date the timing of the first failure⁸⁸.
- b) Mr. Better's view was that *"the time between the second one going and the third one going would be extremely fast. It could in fact be one event with just one going and the other one following straight off"*⁸⁹.
- c) In relation to the timing between the first failure and the second, when pressed, Mr. Better said *"It could have been months, rather than days"*.⁹⁰

Jason Leech's inspection

25) The Commissioners could not find that Jason Leech did not conduct a thorough inspection of pole 39 and the helical termination in February 2008 in accordance with the SP AusNet Line Inspection Manual. There is no evidence that the inspection was not carried out in accordance with the then existing inspection requirements. To the contrary, there is evidence from which the Commissioners should infer that Mr. Leech did carry out his inspection in accordance with

⁸⁸ Better T11325:11-13

⁸⁹ Better T11324:22-26

⁹⁰ Better T11327:21-22

requirements.

- a) Mr. Leech conceded that, 12 months after his visit to pole 39, he could not recall his inspection⁹¹. This is understandable. Assuming Mr Leech inspects approximately 20 poles per day⁹², he is likely to have inspected in excess of 4000 poles between the time of the inspection in February 2008, and the Royal Commission.
- b) Jason Leech, after the inspection of poles 38 and 39, made notations on the PDE sheet regarding additional stock items on the pole tops. That is contemporaneous evidence supporting an inference that Mr. Leech conducted a thorough inspection using his binoculars.
 - i) the change means *“that there is new or different hardware, so you’d have a good look at it...you’d have a look at it with your binoculars as a close-up vantage to the new hardware to make sure there were no loose nuts or anything like that.”*⁹³
 - ii) According to Mr. Braden, the notation of the changed stock items would give him comfort that a close and appropriate inspection had been conducted⁹⁴.

26) To support the proposition that Mr. Leech, contrary to his evidence, did not use his binoculars during the inspection in February 2008, Counsel Assisting has urged the Commissioners to reject Mr. Leech’s explanation for his failure to thoroughly and logically set out all relevant facts in his police statement signed 14 May 2009 regarding his inspection process.

27) Although Counsel Assisting have not used the term in their submissions, they, by implication, invite the Commission to find that Mr. Leech’s explanation that at the time he spoke to the police he was thinking of his inspection process now which involves the use of the camera, rather than his use of the binoculars at the time in February 2008, is a recent invention⁹⁵. This is based on the proposition that at

⁹¹ Leech WIT.7507.002.0007 para 53

⁹² Leech T11426:27-30 *“You might do 10 or 15; you may do 25... Yes, about 20.”*

⁹³ Leech T11439:27-11440:2

⁹⁴ Braden T12322:24-30

⁹⁵ Leech T11421:20-22

the time Mr. Leech signed his statement which incorrectly represented his inspection process on 14 May 2009, he had already realized the error.

“And that is if you had appreciated on 15 April the true position, you would have told your solicitor and you would have ensured changes before you signed it approximately a month later?”⁹⁶

28) The Commissioners should not conclude that Mr. Leech’s explanation is a recent invention for the following reasons:

- a) Mr. Leech’s explanation places him in an unfavourable position and is indicative of a truthful witness, rather than a witness who is false;
- b) Counsel Assisting’s proposition that Mr. Leech would have instructed his counsel to make the appropriate amendments before signing the statement had his explanation been true⁹⁷, relies upon the witness being an analytical and assertive witness. Mr. Leech is clearly not such a witness;
 - i) When confronted with Counsel Assisting’s proposition that his explanation was not one of genuine confusion, rather, recent invention, Mr. Leech replied:

“Well, that was a pretty long day that day. But I mean, yes, I can see where you’re coming from.”⁹⁸ That is hardly the answer of a witness assertively defending a well thought out false position.
 - ii) On another occasion, Mr. Leech failed to assert a position more favourable to himself than that put by Counsel Assisting.
 - In relation to the competency training completed by Mr. Leech, and in relation to identifying which parts of the assessment focused on pole top structures, Counsel Assisting said, *“The first question that really concerns pole top structures is at question 23, is that correct...?---*

⁹⁶ Leech T11421:23-27

⁹⁷ SUBM.202.004.0032 para 9.8

⁹⁸ Leech T11421:26-27 See also Leech T11425:29-30

Yes.”⁹⁹

- Similarly, in relation to the “On the job training package”, Counsel Assisting went through a number of the tasks, describing the focus of each task, getting to Task 15 and said:

“Then task 15, conduct four pole top inspections using image stabilized binoculars?---Yes.”

- At no time did Mr. Leech say that for each one of the “On the job training tasks”, each trainee had to conduct a full pole top inspection. Mr. Braden’s evidence was that, for each exercise, a full inspection of the pole and pole top hardware was required, resulting in a full inspection, including of the pole top hardware of about 64 poles¹⁰⁰. Each exercise had a different focus, nevertheless, the inspector was required to be concerned with pole top structures on every occasion¹⁰¹.
- If Mr. Leech were a false witness capable of being assertive, one would have expected he would have articulated the obviously more favourable factual position.

c) Far from enhancing his position falsely, Mr. Leech tended not to do himself justice in the witness box.

29) Counsel Assisting relies on the existence of rust on the insulator on pole 38 as seen in photographs taken after the fires in February 2009, to call into question the thoroughness of the inspection carried out by Mr. Leech at the time. Such a submission is premised on an unproven assumption; that is, that the rust was present and present to the same degree a year earlier in February 2008.

30) There is no evidence as to the state of the rust on the insulator in February 2008. There is no evidence that, given the appearance of the rust in the photograph, it would have been visible in February 2008. There is no basis upon which to reject

⁹⁹ Leech T11411:20-23

¹⁰⁰ Braden T12317:3-13

¹⁰¹ Braden T 12317:3-13

Mr. Leech's explanation that "...it wouldn't have been as rusty as that when I was there...I would have noticed it."¹⁰²

- 31) The evidence in respect of brown rust on brown insulators is that it is very hard to see¹⁰³.
- 32) Further, the photograph relied upon by Counsel Assisting is taken from above the insulator. It is not a fair or accurate representation of what could be seen by an inspector from the ground one year earlier.
- 33) Counsel Assisting asserted during the course of the hearing¹⁰⁴, and by implication in their submissions¹⁰⁵ that the statement of Mr. Leech was influenced by documents Mr. Leech had access to and was prepared with the assistance of UAM's solicitors. Mr. Leech was in no different position to other witnesses who gave evidence in the Royal Commission. On approximately 175 occasions, the evidence of a witness was introduced with a question such as "*With the assistance of [X] Solicitors, have you prepared a statement*" or question to that effect. It is well known and accepted that witness statements are prepared by solicitors upon instructions from the witness.

Findings urged by Counsel Assisting

- 34) There is no justification for the findings urged by Counsel Assisting to be made regarding Jason Leech's inspection of pole 39¹⁰⁶. The findings urged by Counsel Assisting are inconsistent with the evidence.
- 35) The evidence supports the inference that the helical misalignment was not visible and capable of being seen upon routine inspection. Consistent with the evidence, the Commissioners should make that finding.

Ross Ray QC

Elizabeth Brimer

¹⁰² Leech T11423:27-30

¹⁰³ Leech T11422:28-29

¹⁰⁴ Leech T11417: 8-11, Leech T11425:2-4

¹⁰⁵ SUBM.202.004.0031 para 9.3

¹⁰⁶ SUBM.202.004.0031 para 11.20 and 11.21