IN THE SUPREME COURT OF VICTORIA
AT MELBOURNE
COMMON LAW DIVISION

Not Restricted

S CI 2009 04788

BETWEEN

CAROL ANN MATTHEWS — Plaintiff

and

AUSNET ELECTRICITY SERVICES PTY LTD
(formerly SPI ELECTRICITY PTY LTD)
(ACN 064 651 118)
and others according to the Schedule — Defendants

AND BETWEEN

AUSNET ELECTRICITY SERVICES PTY LTD
(formerly SPI ELECTRICITY PTY LTD)
(ACN 064 651 118) — Plaintiff by Counterclaim

and

ACN 060 674 580 PTY LTD
and others according to the Schedule — Defendants by Counterclaim

AND BETWEEN

ACN 060 674 580 PTY LTD — Plaintiff by UAM Counterclaim

and

AUSNET ELECTRICITY SERVICES PTY LTD
(formerly SPI ELECTRICITY PTY LTD)
(ACN 064 651 118)
and others according to the Schedule — Defendants by UAM Counterclaim

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JUDGE:	OSBORN JA
WHERE HELD:	Melbourne
DATE OF HEARING:	24 and 25 November 2014
DATE OF JUDGMENT:	23 December 2014
CASE MAY BE CITED AS:	Matthews v AusNet Electricity Services Pty Ltd & Ors
MEDIUM NEUTRAL CITATION:	[2014] VSC 663

PRACTICE AND PROCEDURE – Application for approval of settlement of group proceeding – *Supreme Court Act 1986*, s 33V, pt 4A – Settlement of proceeding after trial but prior to delivery of judgment – Whether terms of settlement fair and reasonable – Whether settlement distribution scheme fair and reasonable – Whether claim for legal fees and disbursements reasonable – 'Black Saturday' bushfire near Kilmore East Kinglake – Settlement approved.

APPEARANCES:	Counsel	Solicitors
For the Plaintiff	Mr R Richter QC with Mr L W L Armstrong and Ms M Szydzik	Maurice Blackburn
For the Third to Fifth Defendants	Mr M D Rush with Ms A Robertson	Norton Rose Fulbright
For the Objector (Mr Charles Exton)	Mr G Conlan	Law 554 Solicitors

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HIS HONOUR:

Introduction

1 At 11:45 am on 7 February 2009, a section of power line known as the Valley Span conductor located at Kilmore East broke and, upon striking the ground, ignited a bushfire which spread first south-east and then to the north-west.

2 At the time of ignition, weather conditions were extreme. The temperature was around 40°C, humidity was below 5 % and a north to north-west wind was gusting to around 80 kilometres per hour.

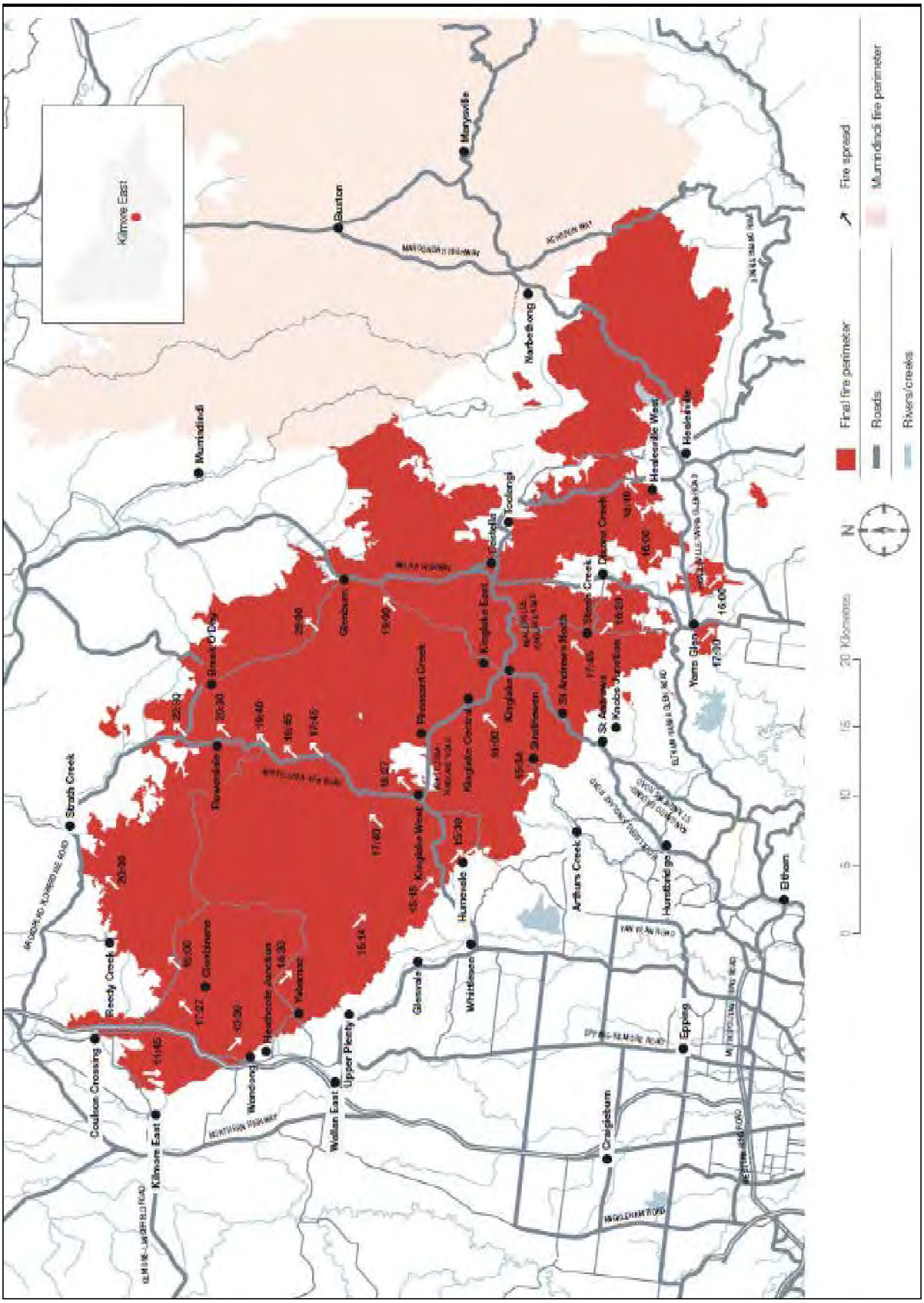
3 The fire ran south to south-east with the wind. It jumped the Hume Highway and spread towards Mount Disappointment with long distance spot fires occurring at Wallaby Creek, Humevale and Strathewen, St Andrews, Steels Creek, Dixons Creek, Yarra Glen and the Healesville area.

4 Later in the day, there was a south-westerly wind change causing the eastern flank of the fire to become the main fire front. The fire then engulfed Kinglake, Kinglake West, Clonbinane, Steels Creek, Chum Creek and Strathewen before progressing towards Flowerdale, Hazeldene, Castella and Glenburn.

5 The fire travelled as far south-east as Yarra Glen, as far east as the Acheron Way and as far north as Strath Creek.

6 The extent of the fire is depicted on the map below, which was produced by the 2009 Victorian Bushfires Royal Commission.[1]

[1] The 2009 Victorian Bushfires Royal Commission was established on 16 February 2009 to investigate the causes and responses to the bushfires which swept through parts of Victoria in late January and February 2009. The Commission delivered its Interim Report on 17 August 2009, and its Final Report on 31 July 2010. The Commission was chaired by the Hon Bernard Teague AO, supported by Commissioners Ron McLeod AM and Susan Pascoe AM.


Kilmore East
Marysville
Buxton
Murrindindi
Narbethong
Healesville
Healesville West
Yarra Glen
Strath Creek
Reedy Creek
Flowerdale
Kinglake
Kinglake West
Kinglake Central
Kinglake East
Pheasant Creek
Glenburn
Toolangi
Steels Creek
Dixons Creek
St Andrews
Strathewen
Humevale
Whittlesea
Glenvale
Upper Plenty
Wandong
Clonbinane
Heathcote Junction
Wallan East
Coulson Crossing
Arthurs Creek
Hurstbridge
Eltham
Epping
Craigieburn
Final fire perimeter
Roads
Rivers/creeks
Fire spread
Murrindindi fire perimeter
20 Kilometres

7 In the course of the conflagration, 119 people died, more than 1,000 suffered serious injury, and approximately 1,772 homes and properties were destroyed or damaged.

8 The plaintiff has brought this proceeding on her own behalf and on behalf of that class of people who were either injured or suffered the death of persons upon whom they were dependent, or suffered property damage or economic loss in consequence of the fire.

9 The claim is brought against the owner and operator of the power line (AusNet Electricity Services Pty Ltd, formerly SPI Electricity Pty Ltd, and referred to as 'SPI' in this judgment), a maintenance contractor charged with carrying out a periodic inspection of the power line (referred to as 'UAM' in this judgment) and various entities of the State of Victoria variously charged with the management of forest lands, the fighting of fires, and the policing of emergencies ('the State parties').

10 After a trial lasting some 208 days before J Forrest J, at which the causes of the fire and questions of legal responsibility for the damage resulting from it were fiercely contested, the proceeding has provisionally settled for a sum, inclusive of costs, of just under $500 million.

11 Pending the outcome of this settlement approval application the matter has not proceeded to stage 1 judgment, namely a judgment on the fundamental question of whether, and if so how, each of the defendants breached any, and if so what, legal duty or duties owed to the plaintiff and group members.

12 Under the deed of settlement, the claims which would otherwise be the subject of determination by the Court are fully and finally settled in consideration of payments by the defendants.

13 SPI will pay approximately $378.6 million, UAM will contribute $12.5 million. The State parties will pay $103.6 million but only for compensation in respect of personal injury and dependency claims.

14 Under the legislation governing group proceedings, this settlement remains conditional upon the Court's approval.

15 The Court must approve both the proposed settlement as between the parties and the proposed scheme for the distribution of settlement funds as between group members. That scheme (the 'SDS') is comprised in a separate document. In broad terms the SDS:

(a) extracts from the overall settlement funds the legal costs incurred on behalf of the claim group; then

(b) allocates the balance of the settlement funds as to three-eighths for the payment of the personal injury and dependency claims, and five-eighths for the property ownership and economic loss claims; then

(c) establishes streamlined procedures for valuing the individual claims of group members and provides for the distribution of the available funds pro-rata according to the value of each individual claim; and

(d) caps the percentage at which the personal injury and dependency claims will be compensated, with any surplus from the fund relating to those claims to be rolled over to the property damage and economic loss claims fund, and used to supplement the recovery rate for those claims.

16 In order to facilitate the approval process, the Court gave directions for notice to be given to members of the group affected by the proposed settlement including instructions as to how and when to file any objections. Ultimately, only three objections were pursued.

17 The application for approval of the settlement has in turn been referred to me for consideration in order to preserve the capacity of the trial judge to bring down judgment in the event that the settlement is not approved, and to do so unaffected by confidential material which may be put forward by the parties in respect of that

settlement.

18 For the reasons which I elaborate below, I would approve the settlement. In summary:

(a) $500 million is a large and commercially significant sum in itself;

(b) it will result in a level of substantial compensation for group members;

(c) that compensation will be achieved in circumstances where they faced some real risk of a nil outcome;

(d) even if some substantial success were achieved, group members also faced a series of other significant subsidiary risks with respect to particular causes of action and heads of damage;

(e) the settlement offers group members a series of material advantages which will not be achievable if the matter proceeds further;

(f) having regard to these factors, the settlement figure is comfortably within the range of reasonable settlements; and

(g) the proposed SDS is appropriate and a fair compromise as between group members.

19 There are a series of contextual circumstances which support my confidence in these conclusions:

- the settlement sum is some 2½ times greater than any sum previously achieved by way of settlement or damages in group proceedings in this State;
- the settlement has not been objected to by the overwhelming majority of group members;
- only two relevant objections have been received and they do not demonstrate that the settlement should be rejected;

- the level of compensation proposed has not been objected to by any commercial claimant having expertise in litigation including, in particular, the group of property insurers having substantial interests in the outcome by way of rights of subrogation;

- the primary matters in issue with respect to liability fall to be assessed after a 208 day hearing extending over 16 months, in the light of very detailed evidence and careful and comprehensive final addresses identifying and addressing the issues in the case;

- consequential risks with respect to the ultimate burden of costs and prospects of recovery also fall to be assessed in the light of the course of the proceeding to date and the proportions they assume can be understood having regard to the scale of the litigation to date;

- the evidence from individual group members called at trial illuminates the issues that would potentially arise and complicate the resolution of the further issues in the trial;

- the settlement is the product in part of an extended and complex mediation process during which there has been an exchange of confidential material between the parties and exploration of potential bases of resolution of the proceeding;

- the settlement is supported by the opinions of trial counsel and the plaintiff's solicitors which have been explained in confidential memoranda and relevantly elaborated in submission to the Court;

- the settlement is consistent with the independent opinion of eminent interstate counsel as to the prospects of success in the broad; and

- the settlement is the product of a protracted negotiation process and can reasonably be regarded as the best settlement the plaintiff and group members will get without going to stage 1 judgment.

20 In order to further explain the bases for the principal conclusions I have set out above, it is necessary for me to address in turn:

- aspects of the procedural history of the matter;

- the principles which I must apply when determining whether to approve the settlement;
- the probable quantum of the claim;
- the risks attending the further prosecution of the claim, if the settlement were not approved;
- the advantages provided to the plaintiff and group members by the proposed settlement;
- whether the costs proposed to be paid to the plaintiff's solicitors are reasonable;
- the appropriateness of the proposed SDS;
- whether the SDS is fair and reasonable as between group members;
- whether the objections made to the settlement should be upheld; and
- some issues of confidentiality.

Procedural context

21 The proceeding was commenced on 16 February 2009 in the name of Leo Keane, as an 'open' class group proceeding under pt 4A of the *Supreme Court Act 1986*. On 23 July 2010, the Court ordered that Mrs Matthews be substituted for Mr Keane as plaintiff.

22 The plaintiff claims on her own behalf and on behalf of the group members for loss and damage caused by the Kilmore East Kinglake bushfire. She brings the proceeding on behalf of persons:

(a) referred to on a list of persons filed with the Court who make claims:

(i) in respect of any personal injury; or

(ii) pursuant to pt 3 of the *Wrongs Act 1958* in consequence of the death of another person as a result of the fire;

(I shall refer to these claimants as the 'I-D claimants'.)

(b) Those who make claims:

(i) in respect of property loss or damage; or

(ii) in respect of economic losses not consequent upon injury to that person or loss or damage to their property.

(I shall refer to these persons as the 'ELPD claimants'.)

23 Prior to settlement, the proceeding had progressed through complex pre-trial steps and been the subject of an initial trial which ran 16 months. Judgment in respect of this stage of the proceeding was reserved.

24 Some idea of the scale of the proceeding can be gleaned from the following incidental details:

(a) there were 26 pre-trial directions hearings; and

(b) 34 pre-trial applications;

(c) 60 major evidentiary and procedural rulings were made by the judge;

(d) evidence was ultimately heard from 40 expert and 60 lay witnesses;

(e) some 22,466 documents were loaded onto the electronic court book;

(f) some 10,364 documents were tendered in evidence; and

(g) in excess of 20,300 pages of transcript were generated in the course of the trial.

25 For present purposes, a significant aspect of the management of the proceeding was the making of orders on 24 January 2013 closing the class. The effect of these orders was to limit the I-D group members to a list of persons filed with the Court. The orders provided for ELPD group members by requiring registration by 22 March 2013 for claims:

(a) for property loss which was uninsured or not fully insured ('above insurance loss claimants'); and

(b) by any insurer who claimed pursuant to rights of subrogation with respect to property loss or economic damage.

26 ELPD claimants who were not registered pursuant to the class closure orders remained part of the proceeding but lost their right to participate in any settlement of the proceeding without leave of the Court. The class closure orders facilitated an estimate by the parties of the total losses suffered by the defined group.

27 As a result of the class closure orders, the number of participating claims in each category is:

(a) 1,731 I-D claimants;

(b) 3,753 above insurance loss claimants; and

(c) 5,006 subrogated claimants.

28 There is some crossover between categories. Nevertheless the total number of individuals falling within the relevant classes is 5,847.

29 A further relevant aspect of the procedure adopted was the definition of liability issues for a stage 1 trial. Prior to the trial, the Court identified 42 common questions (Annexure A to this judgment). The trial was then conducted as a full hearing of all issues raised by the plaintiff's individual claim on the basis that her claim raised most of the 'common questions' relevant to the group members. The hearing included consideration of the plaintiff's individual damages claims for personal injuries and property losses, and also extended to consideration of certain limited issues raised by the claims of four 'sample' group members (Mrs Clarke, Mr Gibson, Mrs Lackas and Mr Bennett). This allowed the template effect of the initial judgment to cover questions which were not directly raised by the plaintiff's case but were nonetheless likely to affect large sub-groups of the claim group.

30 In the course of the trial, the judge indicated that his initial stage 1 reasons would address the fundamental questions of whether, and if so how, each of the defendants breached any, and if so what, legal duty or duties owed to the plaintiff and group members. If the stage 1 ruling found liability on the part of any of the defendants then the parties would return to make further submissions as to various issues of vicarious liability, apportionment, and contribution as between themselves. His Honour would then issue a stage 2 ruling on those further issues.

31 The third aspect of the procedural management of the trial which is relevant for present purposes is the nature of the comprehensive notice procedure undertaken after settlement was provisionally reached.

32 The notice and accompanying information sheet included the following:

(a) a statement that the group members have legal rights that may be affected by the proposed settlement;

(b) a description of the group on whose behalf the proceedings were commenced including a map of the relevant affected area;

(c) a summary of the effect of the class closure orders on persons who did not register a claim by the relevant date and an outline of possible options, if any, which may be available to such persons;

(d) information on how a copy of the statement of claim and defences may be obtained;

(e) a summary of the key terms of the proposed settlement including the settlement sum, a breakdown of the amounts contributed by the various defendants, and the fact the settlement is on the basis of no admission of liability;

(f) a brief explanation of the process and estimated timeline for claims assessment under the SDS including the approximate number of claims and

the estimated percentage of losses claimants could expect to receive based on the sampling conducted by the plaintiff's solicitors;

(g) information on how to obtain a copy of the SDS;

(h) information about the plaintiff's solicitor's fees, whether group members will have to pay back monies received from their property insurers or the Victorian Bushfire Relief Fund, and other deductions from the distribution sum;

(i) a statement that the settlement will not take effect unless approved by the Court;

(j) logistical details regarding the Court hearing of the settlement application;

(k) an outline of the timing and process for registering objections including the form required to communicate such objections in writing and the further expectation to attend the hearing to make submissions in person if practicable;

(l) a statement that group members who do not wish to oppose the settlement are not required to do anything and will be contacted by the plaintiff's solicitors if the settlement is approved;

(m) information on how to obtain legal advice and assistance from the plaintiff's solicitors.

The Court's approach

33 Group proceedings are governed by pt 4A of the *Supreme Court Act 1986* (Vic) ('Act'). Section 33V of the Act requires that any settlement of a group proceeding be approved by a judge of the Court. It states:

> 33V Settlement and discontinuance
>
> (1) A group proceeding may not be settled or discontinued without the approval of the Court.

(2) If the Court gives such approval, it may make such orders as it thinks fit with respect to the distribution of any money, including interest, paid under a settlement or paid into court.

34 The critical questions raised by the application for approval of the settlement are:

(a) whether the proposed settlement is fair and reasonable as between the parties having regard to the claims of the group members; and

(b) whether the proposed settlement is in the interests of group members as a whole and not just in the interests of the plaintiff and the defendants.[2]

35 In *Tasfast Air Freight v Mobil Oil Australia Ltd*, Bongiorno J observed:

> The principles upon which s 33V is based might be said to be those of the protective jurisdiction of the Court, not unlike the principles which lead the Court to require compromises on behalf of infants or persons under a disability to be approved. In a group proceeding, ex hypothesi, there may be persons, in the community who can be affected by such settlement but know nothing of it...[3]

36 In the present case, the group affected by the settlement is very large and contains persons with very diverse claims. It will necessarily include persons who have not been able to follow the course of the proceeding in other than a limited way. It will also include persons who may reasonably have been expected to have had difficulty in following the evidence and legal arguments which have been advanced in the course of the trial because of its length and complexity. It will also of course include persons under a disability.

37 These factors mean that the Court must reach independent satisfaction as to the fairness of the proposed settlement. It will not be sufficient to simply assess whether the opinions expressed on behalf of the plaintiff's legal advisors appear on their face to be reasonable.

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2 *Clarke (as trustee of the Clarke Family Trust) & Ors v Great Southern Finance Pty Ltd (receivers and managers appointed) (in liquidation)* [2014] VSC 516, [31]-[56]; *Matthews v SPI Electricity; SPI Electricity Pty Ltd v Utility Services Corporation Ltd (Ruling No 16)* [2013] VSC 74, [35]-[36]; *Wheelahan v City of Casey* [2011] VSC 215, [59]-[61]; *Perry v Powercor* [2012] VSC 113, [9]-[16]; *In re Timbercorp Securities Limited (Applications for the Approval of Compromises)* [2012] VSC 590, [64]-[68]; *Pathway Investments Pty Ltd v National Australia Bank Limited (No 3)* [2012] VSC 625, [2].

3 [2002] VSC 457, [4].

38 Likewise, the almost complete absence of substantive objections to the settlement cannot relieve the Court of its obligations.[4]

39 Nevertheless, the assessment which the Court is able to make can ultimately be no more than one which confirms whether or not the proposed settlement is one within the range of fairness.[5]

40 In particular, the relative prospects of success can only be broadly gauged. In *A v Schulberg*, Beach JA described the role of the Court in determining whether or not to approve the settlement of group proceedings as follows:

> The job of this Court is to determine whether or not the settlement is fair between the parties and between the plaintiff and group members. While, in making that assessment, it is necessary to form a view as to the correlation between the amount individual group members will recover under the settlement distribution scheme and the amount they might recover after a trial, necessarily any such comparison can only be performed in a broad manner.[6]

41 Decisions of the courts exercising the approval function have identified a series of factors which may be relevant to aspects of the issue of fairness. The decision of Goldberg J in *Williams v FAI Home Security Pty Ltd*[7] is much cited in this regard.

42 Nevertheless, it is also well accepted that there is no checklist which necessarily identifies the indicia of fairness or its absence in a particular case.[8]

43 Potentially relevant factors include the following:

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4 *Darwalla Milling Co Pty Ltd v F Hoffman La Roche Limited (No 2)* (2006) 236 ALR 322, 333, 335; *Wheelahan v City of Casey* [2011] VSC 215, [63]-[64]. Cited with approval in *Matthews v SPI Electricity; SPI Electricity Pty Ltd v Utility Services Corporation Ltd (Ruling No 16)* [2013] VSC 74, [36]; *Thomas v Powercor Australia Limited* [2012] VSC 113, [14]-[15].

5 See fn [2].

6 [2014] VSC 258, [12].

7 (2000) 180 ALR 459, 465 [19]. A number of the factors which were identified in Williams have been incorporated in s 11 of Practice Note 9 of 2010 — Conduct of Group Proceedings, as matters which the Court will take into account when considering an application under s 33V of the Act. The matters listed in the Practice Note are used as a guide only and are not applied mechanically as necessarily definitive considerations.

8 *Darwalla Milling Co Pty Ltd v F Hoffman La Roche Limited (No 2)* (2006) 236 ALR 322, 335; *Wheelahan v City of Casey* [2011] VSC 215, [62]. Cited with approval in *Matthews v SPI Electricity; SPI Electricity Pty Ltd v Utility Services Corporation Ltd (Ruling No 16)* [2013] VSC 74, [36]; *Thomas v Powercor Australia Limited* [2012] VSC 113, [12]; *Clarke (as trustee of the Clarke Family Trust) & Ors v Great Southern Finance Pty Ltd (Receivers and Managers appointed) (in liquidation) & Ors* [2014] VSC 516, [41]-[42].

(a) the complexity and duration of the litigation;

(b) the reaction of the group to the settlement;

(c) the stage of the proceedings at which settlement is proposed;

(d) the relative risks of establishing liability;

(e) the relative risks of establishing loss and damage;

(f) the risks of continuing a group proceeding;

(g) the ability of the defendants to withstand a greater judgment and the range of reasonable outcomes governing the settlement in light of the best feasible recovery;

(h) the range of reasonableness governing the settlement in light of all the attendant risks of litigation on the one hand and all the advantages of settlement on the other; and

(i) the terms of any advice received from counsel and/or from any independent expert in relation to the issues which arise in the proceeding.

44 Lastly, it is necessary to keep in mind the observation of Jessup J in *Darwalla Milling Co Pty Ltd v F Hoffman La Roche Limited (No 2)* that it is not the Court's function to attempt to second guess the plaintiff's advisors as to whether the plaintiff ought to have accepted the offer of the defendants.

> [T]he court's function is, relevantly, confined to the question whether the settlement was fair and reasonable. There will rarely, if ever, be a case in which there is a unique outcome which should be regarded as the only fair and reasonable one. In settlement negotiations, some parties, and some advisers, tend to be more risk-averse than others. There is nothing unreasonable involved in either such position and, under s 33V, the court should, up to a point at least, take the [plaintiffs] and their advisers as it finds them. Neither should the court consider that it always knows more about the group members' businesses than the [plaintiffs], or more about the actual risks of the litigation than their advisers. So long as the agreed settlement falls within the range of fair and reasonable outcomes, taking everything into

account, it should be regarded as qualifying for approval under s 33V.[9]

45 In considering whether the settlement is within the range of reasonable outcomes as between the parties two significant threshold issues arise. The first is the need to make some overall estimate of the probable quantum of damages. The second is the need to make some overall estimate of the prospects on the one hand of total success and on the other hand of total failure.

46 There are a series of subsidiary issues which must also be considered but the two questions which I have identified provide a logical starting point to the inquiry whether the settlement is a reasonable one as between the parties.

The settlement as between the parties

Quantum

47 It is anticipated that the settlement will yield compensation in the order of 70 per cent of the damages likely to be recoverable by group members with I-D claims.

48 ELPD claimants will receive approximately one-third of their claimed losses but on average individual ELPD claimants appear to have been insured for approximately half their losses. As a result, after receipt of the settlement monies, the plaintiff's solicitor estimates that on average individual ELPD claimants will receive approximately 66 per cent of their total claimed losses once insurance payments are taken into account. This figure does not take into account Victorian Bushfire Appeal Fund payments to claimants in relation to property related losses. In some cases, these were substantial.

49 The estimates of quantum forming the basis of these percentage estimates have been informed by evidence aspects of which are the subject of claims of confidentiality and privilege either because they involve mediation processes or are the product of confidential negotiations.

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9 (2006) 236 ALR 322, 339 [50].

50 Nevertheless, I am satisfied that the estimates of quantum adopted by the plaintiff's legal advisors are reasonable. They are the product of the following processes:

51 In respect of I-D claimants, they are the product of a two stage modelling process carried out by the plaintiff's representatives prior to settlement. The first stage commenced in 2012 and involved a 'full work-up' of claimed losses for a random sample of 52 persons which included obtaining appropriate treating and medico-legal reports, as well as detailed information regarding medical expenses and loss of earnings. Claimants conferred directly with junior counsel and the resulting memorandum of assessment was reviewed by Mr Keogh SC and Mr Walsh of Maurice Blackburn, both of whom are very experienced in personal injuries litigation.

52 Following class closure, Mr Keogh SC and Mr Walsh undertook a further 'desktop' assessment of a sample of 173 persons out of the cohort of persons who had registered only during the class closure process and had not previously indicated that they wished to pursue an I-D claim. As the plaintiff's advisors expected, this sample resulted in a lesser value average claim.

53 An average of the estimates from both the first and second samples was calculated to produce a figure which was used by the plaintiff's advisors in assessing the reasonableness of the settlement in question.

54 While there remain some uncertainties attendant on the overall estimate given the small initial sample size, the 'desktop' nature of the second sample and the dangers of extrapolating averages generally, these do not dissuade me from the view that the plaintiff's representatives made a serious and conscientious effort to accurately estimate the amount of I-D losses and accordingly, it is not unreasonable to proceed to settlement on the basis of that estimate.

55 In respect of ELPD losses, the range of losses suffered, the number of individuals affected (approximately 5,500) and the number of claims involved (approximately

9,000) rendered the scale of the task of estimating such losses unprecedented in Australia. In turn, the sampling undertaken, between full work-ups and desktop assessments, was larger than the entire class of around 200 claims in the recent Beechworth bushfires action.

56 In assessing the ELPD losses amongst other things it was necessary to take the following steps:

(a) ascertain the quantum of the insured losses paid out to claimants;

(b) deduct any amounts paid by insurers which were unrecoverable, such as moneys paid for the reinstatement of property when the proper measure of damages would be the diminution of the value of that property; and

(c) make allowances for underinsurance and uninsured losses.

Each of these matters was contentious.

57 The confidential materials make clear that whilst there was some agreement between the parties' legal advisers on a methodology for calculating such losses (to take account of unrecoverable amounts and underinsured and uninsured losses), this did not lead to any agreement as to the quantum of such losses. As counsel for the plaintiff emphasised in oral submission, at no time was there 'even remotely something approaching agreement between the parties' as to the total value of ELPD losses. The conduct of further random sampling by an independent team of assessors engaged by the mediator did not resolve the dispute.

58 Ultimately, the plaintiff's estimate of ELPD losses was adjusted in light of a number of factors which were outlined in the confidential material and included a reflection of aspects of the mediator's estimates to take into account the prospect that the Court may prefer the mediator's approach on certain issues. I have reviewed this material and am satisfied that each of these matters was a legitimate consideration bearing upon the question of what could be considered a reasonable settlement in the

circumstances.

59 On the other hand, I accept that there are aspects of the mediator's approach which it was proper for the plaintiff's legal advisors to reject in formulating an estimated quantum for the purposes of assessing the settlement.

60 It may be that the assessment of claims process which is proposed under the SDS will ultimately result in total figures which are either higher or lower than the estimated figures. This is unavoidable in the present situation of a very large number of diverse claims.

61 All that can be done if the very substantial potential benefits of settlement are to be achieved is that careful and reasonable estimates of the likely order of damages are made. I am satisfied this has been done.

62 Moreover, the obvious commercial advantages to the defendants of settling on a lump sum basis are so overwhelming that it would not be realistic to suggest that the case should only settle on the basis of an agreed percentage of damages to be ascertained on an open-ended basis hereafter.

63 A lump sum also offers the plaintiff and group members the advantage of minimising the cost of the assessment of individual claims and, in effect, maximising the benefit each receives from a sum which has been offered on an all-in basis. The heterogeneous natures of the claims overall and the domestic character of many of them makes this advantage doubly attractive.

64 Uncertainty of quantum in a case of the kind here in issue is also of course a factor which favours settlement from the defendants' point of view. In this sense, it advances the plaintiff's case for settlement and should not be regarded as an entirely negative factor from the plaintiff's point of view.

Primary risk

65 It is necessary next for me to form a view as to the nature and range of risks

materially affecting the plaintiff's prospects of success on liability.

66 I should say at the outset however that for a number of reasons it is not open to me to finally or fully assess the evidentiary and legal issues as if I were in effect the trial judge:

(a) I have not had the benefit of participation in the trial. Because of the duration, complexity and technical nature of much of the evidence, this is a significant disadvantage;

(b) the evidence is so extensive and complex that to attempt detailed assessment of it would require a period of protracted consideration which is not in the interests of justice; and

(c) ultimately, the critical question is simply whether the settlement is within the range of reasonable settlements.

67 It is necessary to say something further about each of these considerations.

68 The relative disadvantage of my position as against that of the trial judge is exemplified by one aspect of the proceeding. In the course of the hearing, the trial judge appointed two expert assessors. By the time of ruling 32, ten experts engaged by the parties to address technical issues relating to the causation of the fire were scheduled to give evidence concurrently in a four week evidence session. Ruling 32 provided further guidance as to the scope of the role of the two assessors as follows:

- The assessors would provide assistance to his Honour. However, the ultimate decision would be that of his Honour alone.
- The assessors would sit with his Honour during the concurrent evidence session.
- The assessors would be permitted to ask questions (of limited scope) of the experts or counsel during the concurrent evidence session.
- His Honour would be permitted to consult with the assessors during

the concurrent evidence session and in chambers.

- The assessors would provide to his Honour, when sought, guidance and technical assistance, including basic 'lessons' on technical matters.

- The assessors would provide advice to his Honour on matters in dispute between the experts.

- The assessors would be available for consultations with his Honour after the conclusion of the concurrent evidence session, including while drafting the judgment.

- In the event the assessors raised a theory or opinion with his Honour that had not been previously identified by the parties, his Honour would discuss this with counsel.

69 It can be seen that the trial judge enjoyed considerable advantages in assimilating and addressing the evidence, and that it was ultimately contemplated that the assessors might assist in preparation of the Court's judgment. I have not had these advantages.

70 Insofar as the second consideration of timeliness is concerned, the Court is now bound by s 8 of the *Civil Procedure Act 2010* to give effect to the overarching purpose of that Act in exercising its powers. That purpose in relation to civil proceedings is to facilitate the just, efficient, timely and cost effective resolution of the real issues in dispute. In the present case, it would be possible to take many months seeking to explore, consider and write in detail about the factual matrix which has been the subject of extended evidence in this case.[10] It would not be in the interests of justice to do so. The plaintiff and the group members have already experienced substantial delay in resolution of their underlying grievances by way of the processes of the law. The Court must provide a timely and cost-effective resolution of the real issues in dispute if this is possible without a further delay.

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[10] At the completion of the stage 1 trial in July 2014 the trial judge indicated that he hoped to be in a position to deliver judgment in February or March of 2015.

71 The third and ultimate consideration referred to above comes back to the role of the Court upon an application of this kind. Satisfaction as to the question of whether the settlement is within the range of reasonable settlements will be achieved if risks as to liability are identified which bring the plaintiff and group members' potential claims within that range.

72 Accordingly, in dealing with the case as to liability I will identify only those primary matters which taken together are sufficient to satisfy me that the settlement is reasonable.

73 I will not seek to address all the issues formulated by the trial judge at trial nor all the bases upon which the defendants contended in final address that the plaintiff should fail.

74 I will also, of course, not purport to express concluded views upon the issues in the case but will simply seek to identify considerations which demonstrate a range of risks. In so doing, I will necessarily concentrate on aspects of the 'down side' of the plaintiff's case. Despite the matters I will identify and elaborate, I should not be taken to have concluded the plaintiff did not have material prospects of success.

The case against SPI

75 The case against SPI was brought on five bases. The central thrust of these claims as ultimately put was as follows:

(a) The targeted damper case — the plaintiff alleged that SPI breached duties of care to her by failing to fit dampers to the Valley Span conductor which would have reduced Aeolian vibration ('Aeolian VIV') within it and consequent fatigue. The plaintiff further alleged that Aeolian VIV was a material cause of the failure of the conductor and the fire caused by its fall.

(b) The asset management case — the plaintiff alleged that SPI breached duties of care to her by failing to implement reasonably appropriate asset management

protocols with respect to its overhead conductors of the type utilised on the Valley Span. The Valley Span conductor was the 17th longest thin steel conductor on SPI's entire distribution network and within that group of super-long spans it was one of the older conductors. It had evidence of past damage, the causes of which were unknown. The plaintiff alleged that it would have featured highly in any review of high risk spans and that, if an appropriate review had been undertaken, it would have been the subject of any reasonable planned replacement program before 2009. In consequence, it would not have failed and the fire would not have occurred.

(c) The scheduled inspection case — it was alleged that SPI breached duties of care to the plaintiff by increasing the recurrent intervals between the systematic inspections of the Valley Span conductor from three years to five years and that, as a result, defects present on poles 38 and 39 during 2008 were not identified. It was further alleged that routine maintenance action consequent upon a proper inspection program would have resulted in the Valley Span being made safe before February 2009. The span would not have fallen down in the conditions in which it did and the fire would not have started.

(d) The oil-operated circuit recloser ('OCR') case — the plaintiff alleged that SPI breached duties of care by failing to suppress the 'reclose' function on circuit breaker devices on the Valley Span conductor in conditions of high bushfire risk. The plaintiff alleged that appropriate protection engineering practice required SPI to prevent the circuit breaker devices from reclosing the circuit in such conditions. If the OCR had not reclosed then it was alleged the probability was that the arcing between the conductor and the ground which ignited the fire would not have occurred.

(e) The nuisance case – the plaintiff alleged that SPI caused a nuisance in the legal sense.

76 It is necessary to next say something further about the factual basis of some of the principal risks the plaintiff faced in respect of the causation aspects of each of these cases.

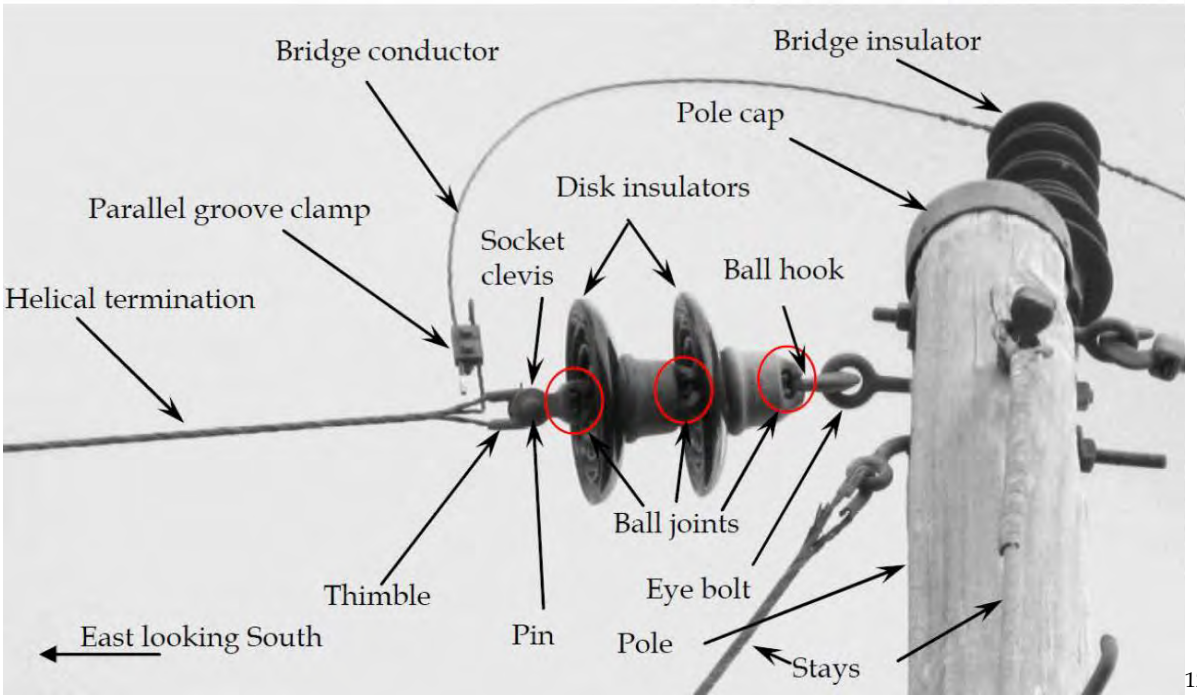
The fire

77 The power line which failed was a single wire earth return ('SWER') conductor[11] comprising three strands of 12 gauge galvanised steel wire spun together. It was known as the Pentadeen Spur line and, as I have said, the portion which failed was known as the Valley Span.

78 The Valley Span was 43 years old and some 1,043 metres long. As the name implies, it traversed a valley constituted by undulating rural land.

79 As the conductor passed over both poles 38 and 39 at each end of the Valley Span it changed its angle slightly and the poles were stabilised with stays.

80 The Valley Span fractured close to the end of the helical termination forming part of the pole 39 pole top assembly.



[12]

[11] The conductor is not earthed otherwise than through the ground beneath it.
[12] Report of Dr Simon Barter, 22 August 2012, 15, figure 1.

81 The conductor then recoiled sufficiently for the portion adjacent to pole 38 to become entangled with the pole 38 stay wire. It came into contact with the ground below the pole 38 stay wire and, while alive, caused arcing which resulted in the ignition of vegetation. Expert investigation determined this to be the starting point of the Kilmore East fire.

82 Two strands of the conductor (strands 2 and 3) failed due to fatigue.[13] Fatigue is a process of gradual failure resulting from repeated exposure to stress.

83 The remaining strand of the conductor (strand 1) failed as a result of sudden tensile overload[14] — that is, a sudden failure because the full load of the conductor was too much for the single remaining strand and it broke at about 11:45 am on Black Saturday.

84 Strand 3 failed first at the helical termination some time prior to 7 February 2009. It unwound and then failed by reverse bending 2.8 metres distal from the helical termination and fell to the ground prior to the failure of strand 2.[15]

85 There were multiple stages in the failure of both strands 2 and 3. The process that led to failure began with initial cracking in both strands. Those cracks then propagated due to cyclic stress of some nature. Ultimately, both strands succumbed to ductile fracture — strand 3 after wearing two thirds of the way through, and later strand 2 after wearing one third of the way through.

86 The question of what caused the initial cracking was contentious at the outset of the trial. Initially, the plaintiff claimed (at least primarily) that the cracks in strands 2 and 3 initiated from fretting fatigue caused by rubbing between the helical termination and the conductor. However, by the end of the trial, there was instead substantial agreement that the fatigue in strands 2 and 3 was initiated at quench cracks in martensite 'white layers', which were caused by electrical arcing resulting

13 Conclave 3 first report dated 6 November 2012, section 1.1(b).
14 Ibid section 1.1(b).
15 Ibid section 1.3.5(a).

most probably from lightning strike.[16] Martensite is a phase of steel that forms when steel is heated to a high temperature then cooled rapidly. It is hard and brittle. It appears in white layers when examined microscopically.

87 The arc marks and quench cracks were located at the end of the helical termination at pole 39.

88 The time of formation of the arc marks and quench cracks was unknown but it was likely to be a considerable time prior to February 2009.[17]

89 Following formation of the quench cracks, fatigue propagated in strands 2 and 3 due to dynamic loading from wind.[18] The period over which this occurred is unknown, as discussed below in relation to the inspection case.

90 The plaintiff's principal case as to causation of the conductor failure was that, subsequent to the damage from lightning, Aeolian VIV was a material cause of the failure of the conductor. There was a fundamental and extensive controversy over this issue at trial.

91 The evidence led by the parties concerning the probable causes of the failure of strands 2 and 3 was technical, complex and very extensive.

92 The plaintiff called Dr Gates (fracture mechanics/metallurgy), Mr Better (engineer), Associate Professor Meehan (modelling), Professor Baitch (engineer) and Mr Hawes (line design). SPI called Dr Barter (fracture mechanics/metallurgy), Mr Vazey (mechanical engineer) and Dr Potts (modelling). UAM called Dr Havard (vibration) and Mr Gartner (fracture mechanics/metallurgy).

93 As I have said, two assessors were also appointed to assist the Court in understanding the evidence, being Professor Randall of the University of New South Wales and Professor Nowell of the University of Oxford.

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16 Ibid section 1.1(d)(iii).
17 Ibid section 1.1(c)(iii).
18 Ibid section 1.1(c)(iv).

94 In total, on the question of causation alone, 35 individual expert reports were filed. Six separate conclaves took place and six joint reports were produced. A concurrent evidence session occupied four weeks. A voir dire preceded the concurrent evidence session and formed part of the evidence at trial. The transcript with respect to the causation issue totalled some 2,500 pages. The final submissions filed by the parties totalled approximately 640 pages, again on this question alone.

95 Extensive modelling and testing were performed, and formed the basis of much of the expert opinion. A key test was performed on the Valley Span itself by Mr Vazey. Dummy conductors were set up on the Valley Span intended to replicate the environmental and other conditions that affected the conductor prior to 7 February 2009. Various outputs on the dummy conductors were then measured over an extended period of time.

96 There was, however, continuing uncertainty as to the cause of the fractures; in particular, as to what type or types of wind-related stressed caused the initial cracks to propagate. The nature of the underlying conceptual framework and some indication of the degree of complexity of the evidence producing this uncertainty can be traced through three of the conclave reports to which I shall shortly refer.

97 It is convenient to say something in narrative form about the conceptual framework bearing on the plaintiff's case before turning to the conclave reports.

98 Strands 2 and 3 fractured at about 45° to the axis of the conductor. The question therefore arose as to how such a fracture plane could be produced. A 45° crack plane suggests shear stress or torsional stress, whereas vertical or bending stress would be expected to produce a 90° fracture plane. Aeolian VIV produces vertical vibration, and accordingly it was agreed that Aeolian VIV would generally be expected to produce a 90° fracture plane and not a 45° crack plane. If Aeolian VIV would not directly cause a 45° crack plane, the question arose whether the vertical vibration involved in Aeolian VIV could somehow be translated into shear or torsional stress, by coupling, or in combination with other stresses, to form a

complex stress field, such that it would produce a 45° crack plane.

99 Additionally, cyclic stress would not cause the cracks to propagate unless the magnitude of the stress exceeded a certain stress threshold. It was not certain what the exact stress threshold would be, but it was agreed that such a threshold would apply, and would be higher initially before dropping to a lower threshold at the late stages of fracture propagation. Aeolian VIV therefore needed to generate stress of this magnitude or higher if it were to propagate the fractures. On the data available, it appeared that neither Aeolian VIV nor other types of wind-related stress would have surmounted the stress threshold. There were questions as to whether the magnitude of stress caused by Aeolian VIV and other stressors was under-measured, or whether the stress threshold was over-estimated.

100 Further, given that the cracks were propagated by cyclic stress, a question arose as to what kind of stress could have generated a sufficient number of stress cycles. Aeolian VIV is a low amplitude, high frequency type of vibration. On the other hand, other types of wind-related motion such as buffeting involve high amplitude, low frequency motion.

101 In the first Conclave 3 report dated 6 November 2012, the experts agreed generally as follows:

	1.1. General agreements about the primary failures	Experts who agree
a)	The conductor failure was studied using computational modelling, physical simulation, metallurgical examination, the application of experience, and reviews of the relevant technical literature. The studies included careful examination of the photographic evidence from the failure site and of the samples of the failed conductor and fittings in the offices of the Victoria Police. Some studies benefited from access to original fittings and conductor samples, and others from high quality replicas of key components.	SB, AEP, PM, BG, DGH, JV, HB, JG
b)	It was assumed that the failure of the conductor between poles 38 and 39 (involving fractures located at or about the distal end of the helical termination at pole 39) occurred in three distinct stages: initiation of cracks in the surface of strands 2 and 3, propagation of these cracks by fatigue, and	SB, AEP, PM, BG, DGH, JV, HB, JG

	separation of these strands. This was then followed by the overload failure of strand 1.	
c)	In reference to the above, the following opinions about the primary fractures[19] of the strands of the conductor were agreed in general by all the Experts at the conclave:	SB, AEP, HB, JG, JV, DGH, BG
	i. Brittle martensitic layers were observed to be present in two of the steel strands, at positions corresponding to the tips of the long arm of the helical termination.	SB, AEP, HB, JG, JV, DGH, BG
	ii. The evidence indicates that the martensite formed as a result of arcing (electrical discharges) between the helical termination and the conductor. The arcing is believed to have occurred as a result of lightning strikes on or in the vicinity of pole 39.	JG, JV, AEP, BG, SB, HB, DGH
	iii. The time at which these arc burns occurred during the life of the conductor is unknown. Therefore it is unknown what number of loading cycles was applied to the conductor after the production of these burns.	SB, AEP, BG, DGH, HB, JG, JV
	iv. The brittle martensitic layers were at the bottom of depressions (craters) in the two strands. In strand 3 the depth of the depression was about 0.12mm and in strand 2 the depth was about 0.09mm.	SB, AEP, BG, HB, JG
	v. The brittle layers in both of these depressions included small surface cracks, most likely due to the thermal stresses produced during the arcing events. These cracks are hereafter referred to as 'quench cracks' since they most probably occurred during the cooling part of the thermal cycle. In strand 3 the quench crack was between 0.06 and 0.08mm deep from the bottom of the depression and for strand 2 the quench crack was about 0.03mm deep. The diameter of each of the strands was between about 2.50 and 2.64mm.	SB, AEP, BG, HB, JG
	vi. The small surface cracks in the brittle martensitic layers were transverse to the axis of the strands. Under cyclic loads produced by the service environment (primarily wind induced dynamic loading), these cracks had produced sufficient stress intensities at their tips to lead to fatigue crack growth at some time after their formation.	SB, AEP, BG, HB, JG, JV
	vii. The fatigue crack planes were at about 45° to the axis of the two strands so affected. The cracks appear to have been growing in the tensile mode. This indicates that the maximum Principal stress produced by the cyclic loading was at 45° to the axis of these strands. This angle of crack growth can be produced by local torsional cyclic loading in the strands in each of these cases or by cyclic loading which results in a complex stress field. *While this is agreed, further examination of this point is required. Such an examination may take the form of testing, field measurements and/or modelling.*	SB, AEP, BG, HB, JG, JV

[19] Those strand fractures that caused the conductor to fail.

viii.	*The conductor throughout its operational life, through wind loading of various types, would be subject to tensile loads, bending and torsion that would have generated tensile, bending and shear stresses (due to torsion) in the strands. Consequently, the local stress state would have been complex. Moreover, these applied loads would include both static or quasi-static loads and rapidly fluctuating (cyclic) loads.*	SB, AEP, BG, DGH, JV, HB, PM, JG
ix.	*The observed fatigue cracks were propagated by repeated cyclic stresses that are likely to have included tensile, bending and torsion components in the strands due to wind induced dynamic cyclic loading of the conductor. The local cyclic shear stresses due to torsion appear to have dominated the crack growth.*	SB, AEP, BG, JV, HB, JG
x.	Over time, the fatigue cracks grew to reduce the cross sectional areas of strands 3 and 2, such that, in the first instance strand 3 could no longer support the service tension load (dynamic and static) and it failed. Later, strand 2 failed when the supportable service tension load (dynamic and static) was exceeded, noting the absence of the load-carrying capacity of strand 3. The uncracked strand (strand 1) then failed by tensile overload as a result of dynamic and static loading.	SB, AEP, BG, DGH, JV, HB, JG
xi.	The failure of the second strand (strand 2) and final (strand 1) most probably occurred at effectively the same time.	SB, AEP, BG, DGH, JV, HB, JG
xii.	Simulations of the true condition of the failed conductor were hampered by lack of samples of the exact conductor and exact hardware, and lack of knowledge of the exact tension on the failed conductor when it was strung. Effects of the age of the failed conductor were also difficult to replicate in the tests and modelling. However, simulations were carried out with as close to original components as were available and some conclusions about the conductor failure can be drawn.	SB, AEP, PM, BG, DGH, JV, HB, JG
xiii.	In general there are several age-related mechanisms that can have degrading effects on conductors. These may include: zinc loss, corrosion of the steel, strain aging, reduction in self damping and external damage such as lightning strikes. Additionally, the accumulation of stress cycles (over certain levels) will result in degradation through fatigue and local wear mechanisms.	SB, AEP, BG, DGH, JV, JG, PM, HB

[20]

102 The first Conclave 3 report then examined the individual tests and models that had

[20] Conclave 3 first report dated 6 November 2012, section 1.1 (emphasis added; footnote in original).

been carried out. It recorded agreement concerning the tests performed on the Valley Span itself by Mr Vazey. The agreements included the following:

1.3.1 Agreements about the Vazey tests		Experts who agree
…		…
e)	*The field testing indicates that, in the test spans, the majority of the high magnitude cycles are related to low frequency oscillations that manifest as changes in the tensile stress in the conductor. These tension-tension cycles show ranges up to 50MPa under the weather conditions observed.*	SB, AEP, BG, JV, HB, PM, JG
f)	*The field test indicates that, in the test spans, aeolian vibrations (high frequency bending vibrations) show a range of induced stresses that were generally less than 10MPa to 12MPa. However there is not complete agreement about the interpretation of this observation – see points of disagreement below.*	SB, AEP, BG, JV, JG, HB

[21]

103 The report next dealt with the laboratory trials carried out by Dr Havard. These related to quantification of the effect of a misaligned helical loop end over the thimble that is held in the clevis of the termination. As will appear below, this was ultimately agreed not to be a significant circumstance.

104 Next, the report addressed laboratory testing carried out by Dr Barter. The following points were agreed:

1.3.5. Agreements about the Barter tests and analyses		Experts who agree
a)	The failure sequence was established as: The first fracture occurred to strand 3 at the end of the helical termination, followed by a second failure of strand 3 at about 2.78m from the first fracture. Strand 2 then failed by fatigue. Finally, strand 1 failed by tensile overload probably at or shortly after the time that the failure of strand 2 occurred.	SB, AEP, BG, DGH, HB, JV, JG
b)	The arc burns produced by the induced lightning strikes and those produced by the controlled energy level contact arcs all had features that were very close to the appearance of the arc burns in the failed conductor.	SB, AEP, BG, HB, JG
c)	All three of the situations (burns in the failed conductor, the lightning strikes and the contact arc burns) produced burns that on occasion caused quench cracks due to rapid cooling.	SB, AEP, BG, HB, JG, JV
d)	Within the limits of a tensile fatigue test program the	SB, AEP,

[21] Ibid section 1.3.1 (emphasis added).

	results indicate that a conductor without arc burns had a life of in excess of 10^7 cycles at 5kN cyclic magnitude, while with the same loads test specimens with cracks had lives between 10^4 and 10^5 cycles.	BG, DGH, JV, HB, JG
e)	The tests and analyses suggest that the quench cracks would be a precondition to the generation of the fatigue cracks, although this does depend on the magnitudes of cyclic stresses actually generated in service.	SB, AEP, BG, DGH, JV, HB, JG
f)	Assuming that the two arc burns that resulted in the two fatigue cracks at the end of the helical termination occurred at the same time, the fatigue cracks in strand 3 and 2 would have grown concurrently. Therefore, if they experienced the same stress regime then the time between their failures would be likely to be only a small percentage of the total life of the cracking, at this location.	SB, BG, DGH, HB, JG, AEP
g)	In the presence of the quench cracks observed in the failed strands, the tension-tension loads required to fail a single conductor strand (with the other strands still intact) are likely to be: a peak cyclic stress range of about 100MPa applied on top [of] the static stress, which was estimated to be about 300MPa (noting that the approximate tensile strength of the conductor is 1480MPa).	SB, AEP, BG, JG, HB
h)	The fatigue cracks produced from the induced cracked arc burns by tensile loading in the laboratory tests grew perpendicular to the loading direction (perpendicular to the axis of the strands). By contrast, the fatigue cracks in the two strands that failed at the end of the helical termination grew at about 45° to the axis of the strands. The 45° angle suggests that the direction of the Maximum Principal stress was at 45° to the direction of the strand at the location of the fracture.	SB, BG, JV, HB, JG, AEP
	i. The bending fatigue tests on sections of new and failed conductor produced fatigue cracks from the induced flaws that also grew perpendicular to the axis of the strands.	SB, BG, JV, AEP, HB, JG
	ii. The respective growth rates of the fatigue cracks in strand 3 and 2 could have been influenced by the orientations of the two strands with respect to the planes of bending, neutral axis etc.	SB, AEP, HB, BG, JV, JG

[22]

105 The report next addressed modelling undertaken by Associate Professor Meehan to investigate the relative change in the cyclic bending stresses at the end of the helical termination due to the ill-seated jammed loop end of the helical clevis.

106 The report then addressed modelling undertaken by Dr Potts to assess the

[22] Ibid section 1.3.5.

appropriateness of Associate Professor Meehan's modelling assumptions and the method used.

107 Ultimately, the report recorded the following agreed conclusions about the testing modelling and simulation:

1.4.1. Agreed conclusions about the testing, modelling and simulation		Experts who agree
a)	The assumed mechanisms and order of failure (ignoring the second failure to strand 3), as described above are supported by the physical evidence.	SB, AEP, BG, DGH, JV, HB, JG
b)	The results of the field testing with an ill-seated (misaligned) helical loop end over its thimble (albeit not replicating jamming of the thimble within the clevis) would appear to have had only a minor influence on the vibration behaviour of the conductor.	SB, AEP, BG, DGH, JV, PM, JG, HB
c)	The dynamic stress changes due to the misalignment of the loop end of the helical termination are largely negligible in the physical laboratory tests (within their limitations) and if anything have been shown to be slightly beneficial.	SB, AEP, BG, DGH, JV, PM, HB, JG
d)	Having noted that there are several age related mechanisms that can have degrading effects on conductors (listed in the assumption above), the failed conductor had damage in the form of arc burns that appear to have been very damaging to the fatigue life of the conductor and it is likely that without that damage the conductor would not have failed.	SE, AEP, BG, DGH, JV, HB, JG
e)	The failed conductor did experience high frequency aeolian vibrations during its life. Typically such displacement amplitudes are small, less than one conductor diameter, and typically reduce in amplitude as the frequency increases to only a fraction of conductor diameter. This was supported by the Vazey field test results.	SB, AEP, PM, BG, DGH, JV, HB, JG
f)	The failed conductor span is expected to have experienced low frequency (less than 1Hz) conductor swing. This was supported by the Vazey field test results. It is known that at low frequency, spiral impact[23] dampers have less influence on vibration suppression.	SB, BG, JV, AEP, PM, DGH, JG, HB
g)	Spiral dampers do reduce the amplitude of high frequency vibrations particularly above about 20Hz (for the diameter of the failed conductor).	SB, AEP, PM, BG, DGH, JV, HB, JG
h)	*Adding dampers to the span may have delayed, but not necessarily prevented, the failure of the conductor. The martensite and quench cracks arising from lightning strikes constitute a significant*	SB, BG, AEP, PM, DGH, JV,

[23] Commonly called 'spiral damper'.

	stress-concentrator, reducing the minimum magnitude of cyclic stress required to grow fatigue cracks, hence permitting a fatigue crack to occur at lower stress ranges than would be the case for an undamaged conductor. If the application of dampers did not reduce the stress intensity range to below the minimum value required to propagate a crack (a value known as stress intensity threshold or fatigue threshold) then the conductor would still eventually have failed, albeit possibly after a longer period of time. As to when these martensite defects occurred and the rate and likely timing of the failures that ultimately occurred, this is unknown	HB, JG
i)	*There is disagreement between the experts on the interpretation of the results from the field tests and the models, which with further analyses may approach a greater degree of convergence.*	SB, AEP, PM, HB, BG, DGH, JG, JV
j)	At the time of this report, the stresses measured in the Vazey field tests indicated that wind induced vibrations appear to dominate the load spectra. There are two mechanisms identified: low frequency swinging (<=10 Hz), and higher frequency (>10Hz) vortex induced vibration referred to as aeolian vibration. The data also contains some infrequent unexplained 'Impulsive' events.	SB, AEP, PM, BG, JV, HB, JG, DGH
k)	The fatigue fracture surfaces of the failed strands (at the end of the helical termination) were at 45° which is consistent with local shear stresses (due to torsion) within the individual strands.	SB, AEP, BG, JV, JG, HB
l)	*In a helically braided conductor or wire rope, shear stresses (due to torsion) can in principle be induced by tension-tension, local bending and conductor swing or combinations of these. However, none of the expert reports filed prior to the conclave have demonstrated the manner in which 45° crack growth can be generated in a simple 3-strand conductor of the relevant lay under loading dominated by tension-tension cycling. Moreover, none of the laboratory simulations has yet been successful in reproducing such 45° fatigue growth; only transverse cracks have grown. Further modelling or physical simulation is required to clarify this question.*	SB, AEP, PM, BG, DGH, JV, HB, JG

[24]

108 The report went on to re-state that the levels of wind induced loading necessary for crack propagation were still being debated[25] and to state with respect to the effect of martensite/pre-cracks on fractures as follows:

	3.1 Areas of agreement	Experts who agree
a)	The pre-cracks found in the untempered martensite layers probably occurred immediately on cooling of the affected	SB, AEP, HB, DGH,

[24] Conclave 3 first report dated 6 November 2012, section 1.4.1 (emphasis added; footnote in original).
[25] Ibid section 2.

	volume of steel following the production of the untempered martensite regions by arcing. After their formation, the conductor tension and fluctuations in this tension due to wind loads and temperature changes would have caused these cracks to begin to propagate by fatigue.	JG, BG
b)	The fractured conductor strands (at the end of the helical termination) had damage in the form of arc burns that appear to have been very damaging to the fatigue life of the conductor. It is likely that without that damage the conductor would not have failed by fatigue without some other form of degradation reaching a critical size.	SB, AEP, BG, JV, HB, DGH, JG
c)	The unknowns that arc burns introduce, such as residual stresses, make crack growth predictions based on fracture mechanics difficult, imprecise and indicative only. This does not discount fracture mechanics as a means of interpreting fatigue crack initiation and propagation, but rather emphasising it as being an interpretive rather than absolute tool.	SB, AEP, BG, JV, DGH, JG, HB
d)	For crack growth by fatigue to occur, local cyclic tensile stresses must be present and these cyclic stresses must be above a threshold although this threshold may be variable depending on the particular situation.	SB, AEP, BG, DGH, JV, HB, JG, PM

[26]

109 It further addressed the effect of misalignment of the helical termination loop end[27] and then recorded the following agreement with respect to the effect of vibration on the conductor:

	5.1 Areas of agreement	Experts who agree
a)	Aeolian vibration of the conductor in many circumstances is recognised as being one of the primary driving mechanisms leading to propagation of fatigue cracks across the strands in thicker conductors. The conventional design approach seeks to configure the conductor span to ensure that aeolian vibration related stresses are below the nominal fatigue endurance limit of the conductor.	SB, AEP, DGH, HB, JG, PM, BG
b)	The wind excites the conductor at one or more of its natural frequencies leading to low frequency sinusoidal swinging oscillations in a range of frequencies (i.e. the fundamental and low frequency harmonics), and concurrently excites cross-flow vibration associated with lock-on to wind vortex shedding frequencies which are a function of increasing wind speed. The stress in the conductor depends on the curvature of the conductor, that is in turn the result of vibration amplitude and wave length, that being inversely	SB, AEP, PM, HB, BG, DGH, JG

[26] Ibid section 3.
[27] Ibid section 4.

	proportional to frequency.	
c)	The large amplitude low frequency swinging modes produce low frequencies and long wave lengths, with low resultant curvatures, though the span-wise increases in tension are potentially a significant source of cyclic tensile and cyclic shear stresses due to torsion within the conductor strands, but with largely insignificant bending stresses.	SB, AEP, PM, DGH, HB, BG, JG
d)	High frequency vibrations have short wave lengths. The curvature of the conductor, and hence the bending stress, can still be large even with small amplitudes.	HB, PM, JG, JV, AEP, DGH
e)	Low velocity winds will tend to excite low frequency cross-flow vibrations, with relatively long modal wave lengths relative to the length of individual spiral impact dampers making them less effective at these frequencies. Moderate velocity winds produce high vibration frequencies and short wave lengths relative to the length of individual dampers, which are thus well capable of significantly suppressing the incident vibrational waves.	SB, AEP, PM, DGH, HB, JG
f)	*The report on the field data collection testing (Vazey) has not so far demonstrated aeolian type vibration that had stress ranges of sufficient magnitude and repetitive occurrence to suggest that aeolian vibration was driving the cracking in the case of the failed conductor. Further investigation of the current and future data sets is necessary.*	SB, AEP, PM, BG, JV, HB, JG, DGH

[28]

110 The report then addressed the effect of vibration damping or other measures on the probability and timing of the primary fractures and noted in part:

	6.1 Prefacing Background Informative Comments	Experts who agree
…		…
b)	Generally, conductors strung at high tension and with long span lengths, require additional damping to keep the amplitudes of vibration below the endurance limit. The current Australian and utility Standards clearly identify the need for dampers on long spans (at the time of the stringing of the failed conductor these were not required). However, the Standards do not clearly state what specific type and performance characteristics of dampers should be fitted, nor the associated number of dampers required under particular circumstances. More dampers are generally required on a long span than on 'normal' length spans. The type of damper conventionally employed for SWER conductors is a spiral impact damper and these would be attached, singly or in pairs, near the ends of the span, though the guidance on this is not codified.	AEP, PM, DGH, HB, JG

[28] Ibid section 5.1 (emphasis added).

[29]

111 It further recorded the following areas of agreement:

	6.2 Areas of agreement	Experts who agree
a)	In the case of the failed span, which was long, its small diameter and three strand construction has not been the subject of significant prior investigation to achieve codified industry consensus and needs systematic study of the damping required.	SB, AEP, DGH, PM, HB, JG
b)	The simulations by Havard indicated that the highest stresses in terms of bending stress per unit amplitude of conductor oscillation occurred when high frequencies were excited. However, typically the amplitude of oscillation decreases with increasing excited oscillation frequency, whereby the absolute values of bending stress do not necessarily increase with increasing frequency, as recorded in much of the Vazey field data. Thus if the absolute amplitudes of oscillation are sufficiently large then it is desirable that additional damping that is effective up to these high frequencies ought to be fitted. However, the occurrence of high frequency vibrations of a small amplitude does not of itself necessitate the fitting of dampers.	SB, AEP, PM, DGH
c)	If the high frequency vibrations were of sufficient magnitude then it would be agreed that the fitting of spiral dampers would have lengthened the lives of the fatigue cracks at the end of the helical termination.	SB, AEP, DGH, JV, PM, HB, JG
d)	If the high frequency vibrations were not of sufficient magnitude in this regard, then it would be agreed that the fitting of spiral dampers would not have had any influence on the lives of the fatigue cracks at the end of the helical termination.	SB, AEP, DGH, JV, JG, HB, PM
e)	High frequency vibrations have short wave lengths. The curvature of the conductor, and hence the bending stress, can still be large even with small amplitudes. Spiral impact dampers are demonstrably effective under those conditions.	DGH, HB, AEP, JV, PM, JG

[30]

112 The report also recorded further comments on 'other measures' which might have minimised the effects of vibration.[31]

113 The second report of the third Conclave dated 15 February 2013 recorded general

[29] Ibid section 6.1.
[30] Ibid section 6.2.
[31] Ibid section 6.4.

agreements about the primary failures in the conductor:

1.1	Fatigue surface orientations: the following statements are expansions/refinements of the statement included in the first Conclave 3 report: *vii. The fatigue crack planes were at about 45° to the axis of the two strands so affected. The cracks appear to have been growing in the tensile mode. This indicates that the maximum Principal stress produced by the cyclic loading was at 45° to the axis of these strands. This angle of crack growth can be produced by local torsional cyclic loading in the strands in each of these cases or by cyclic loading which results in a complex stress field ie with contact.*	**Agree**
1.2	In metallurgical and mechanical failure investigations, it is typical that the observed plane of fracture provides considerable diagnostic information about the nature and orientation of the stresses that drove any fracture of interest. Fatigue cracks, as were present in the incident conductor, usually propagate on a plane oriented perpendicular to the direction of maximum cyclic tensile stress. Thus the observed plane of the fatigue crack can provide information about the orientations of cyclic stresses in the local region where the cracking occurred.	SAB, DGH, JDG, PM, BG, JAV, AEP, HB
1.3	*The orientation of the local stresses depends on the types of external forces that combine to generate these stresses. In wires, the loading actions that generally contribute to a failure may be tension, bending and/or torsion. These loading actions can give rise to both axial and shear stresses. Axial loads tend to produce fatigue crack planes that are transverse to the axis of the wire. Bending loads will also produce transverse planes over the early part of a crack, followed by planes that may diverge, depending on how close the crack gets to the neutral axis. Torsional loads tend to produce a 45° plane of fatigue crack growth, which may develop into a spiral failure if the torsion is confined to a single wire. Mixed loading modes may produce crack planes intermediate between these characteristic orientations.*	SAB, DGH, JDG, PM, BG, JAV, AEP, HB
1.4	*The fatigue crack planes observed at the end of the helical termination adjacent to Pole 39 were at about 45° to the axis of the two strands so affected. In a helically stranded conductor, a component of shear stress is generated in the strands even under purely axial tensile loading or pure bending loading of the conductor. However, tensile and bending loads should cause the crack plane to deviate only a small amount from the transverse plane. This was observed in the laboratory fatigue tests performed by Barter, where the observed fatigue crack planes were reported to be essentially transverse to the axial direction of the conductor. The 45° crack plane observed in the incident conductor indicated that the influence of cyclic shear stresses was significantly larger than can be explained simply by conventional interpretive expectations arising from cyclic tensile or bending loads in the helically stranded conductor.*	SAB, DGH, JDG, BG, AEP, HB

1.5	The field tests (Vazey) and the laboratory tests (Havard) were not configured to measure shear stresses at the failure location, since at the time that these tests were designed they were focused on measuring tension and bending stresses only.	SAB, DGH, JDG, PM, BG, JAV, AEP, HB
1.6	*The members of the Conclave cannot be categorical about the mode (or modes) of cyclic loading that produced the observed 45° fatigue crack growth planes. The further investigations that have been undertaken since the previous Conclave 3 report was issued have not been able to complete a full explanation of the source of the stresses that produced the 45° fatigue crack growth planes. Planned additional testing and analysis by Potts, to be completed shortly, may aid in this part of the investigation.*	SAB, DGH, JDG, PM, BG, JAV, AEP, HB

[32]

114 It went on to record observations concerning the continuing results from field testing.[33]

115 It amplified the views previously expressed on the sequence of events and quantification of tension and failure in the first report:

3.1	In the first report of Conclave 3 the following statement was made: *1.3.5 g In the presence of the quench cracks observed in the failed strands, the tension-tension loads required to fail a single conductor strand (with the other strands still intact) are likely to be: a peak cyclic stress range of about 100MPa applied on top the static stress, which was estimated to be about 300MPa (noting that the approximate tensile strength of the conductor is 1480MPa).*	**Agree**
3.2	In the time between the previous report and this one, further literature surveys and mathematical simulations and assessments have been carried out. From these we have refined our previous estimates of upper and lower limits for the cyclic principal axis stresses (those stresses acting perpendicular to the fatigue crack growth plane) likely to be required to commence propagation of fatigue cracking from the initial quench cracks in strands 2 and 3 in the incident conductor.	SAB, DGH, JDG, PM, BG, JAV, AEP, HB
3.3	Using various measures of the initial quench crack sizes, taken from the different Expert witness reports, we have revised and refined the geometry factors required to calculate the change in stress intensity factor (ΔK) at the crack tip for a given change in the tensile component of the applied far-field stress. (ΔK is the magnitude of the stress intensity change at the crack tip, as determined by the	SAB, JDG, BG, JAV, AEP, HB

[32] Conclave 3 second report dated 15 February 2013, section 1 (emphasis added).
[33] Ibid section 2.

	geometry factor, crack depth, and the magnitude of fluctuations in the applied far-field stress – the positive value of this is used in fatigue crack growth calculations). Taking into consideration that the threshold stress intensity range ΔKth (the ΔK below which cracking is not expected to occur) could be affected by other factors such as residual stresses at the tip of the quench cracks and possible environmental effects, we have also revised and agreed upon plausible values for ΔKth for the quench cracks. From these refined values we have agreed that the lowest plausible estimate for the required cyclic stress range (Δσ) was 70MPa – back calculated from the expected ΔKth and the likely geometry factors produced by the shapes and depths of the quench cracks. It should be noted that this could be as high as 120MPa given small changes in the assumptions used to estimate the ΔK at the tips of the quench cracks and that were agreed could be possible. Such a variation is not unusual given the limits of the data available. Material-specific testing might be capable of narrowing this estimate by reducing the uncertainty, but these numbers are considered plausible given the inherent variability of fatigue crack growth and there will always be a measure of uncertainty about these calculations.	
3.4	It has been agreed that the estimation of ΔKth is unlikely to be resolved through further testing, time, review or contemplation; as such this remains an unknown within current state of the art.	SAB, DGH, PM, BG, JDG, AEP, HB, JAV
3.5	Within the Conclave sessions, the available Barter fatigue test results were used, within their limitations, to calibrate these estimates, and this suggested that the required cyclic stress range was likely to be within the lower half of the above band, between 70 to 100MPa.	SAB, AEP, HB, JAV

[34]

116 It then reviewed a second supplementary report by Dr Barter and a second supplementary report by Dr Gates. It summarised and discussed the Vazey data. It reviewed data put forward by Mr Better. It reviewed a second report by Dr Potts. It addressed issues raised by Dr Havard and others relating to the dynamics of stress.

117 It ultimately expressed the conclusion that the Conclave agreed that it is most likely the misaligned helical termination had no significant effect on reducing the life of the conductor.[35]

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[34] Ibid section 3.

[35] Ibid section 11.6.

118 It also expressed the following summary conclusion about the effect of spiral vibration dampers:

12.1 The Vazey field trials indicate that the aeolian VIV occurring at wind speeds up to 15km/hr are well attenuated by the fitting of spiral dampers.	DGH, PM, AEP, SAB, JDG, HB, JAV
12.2 The Vazey data detected aeolian VIV and it was observed that these vibrations do give rise to bending stresses. The single-modal cyclic stress range magnitudes are typically 1 to 2 MPa (see paragraph 7.22), though exhibited co-contributing concurrent multi-mode beats with magnitudes up to 14MPa (see paragraph 7.24).	DGH, AEP, SAB, JAV, JDG, PM, HB
12.3 The Vazey field trials indicate peak-to-trough stress ranges in the order of 60 MPa in other modes of vibration, and higher in occasional impulsive events.	DGH, PM, AEP, SAB, JAV, HB
12.4 The Potts analysis indicates that the stress ranges measured are limited to a finite set of wind speeds. When expanded to represent the winds experienced over the last 12 years the Potts analysis indicates low frequency vibrations could have the capacity to produce stress ranges in excess of 100MPa.	DGH, AEP, SAB, JDG, JAV
12.5 The Potts, Barter, and Gates fracture mechanics approaches indicate that stress in the range of 70 to 120MPa are required to initiate propagation of the fatigue cracks, from the observed quench cracks. The analysis indicates that even for advanced cracks, a stress range of at least 30MPa is required to contribute to the propagation of a fatigue crack.	DGH, BG, AEP, SAB, HB, JAV
12.6 Cyclic stress ranges of 30 MPa are significantly greater than stress magnitudes that have thus far been found to be possible for VIV.	JDG, AEP, SAB, DGH, JAV

36

119 Lastly, it relevantly expressed the following summary conclusion about the influence of the quench cracks:

13.1 Without the presence of the quench cracks, it is considered unlikely that the conductor would have failed when it had due to in-service fatigue load duty.	DGH, BG, AEP, SAB, JAV, JDG, HB
13.2 It is also significant to note that the arcing damage on Strands 2 and 3 effectively crippled the intended fail-safety inherent in this conductor design. The conductor could have remained standing for a very long time with only one strand failed, being unlikely to fail by fatigue, if neither of the remaining strands were damaged with quench cracks.	DGH, BG, AEP, SAB, JAV, JDG, HB

37

36 Ibid section 12.

120 The third report of the third Conclave dated 21 March 2013 commenced with the following preamble:

1.1	The previous meeting of Conclave 3 concluded with several issues upon which there was limited convergence of opinion between experts due to uncertainty as to the actual resultant stress-state within the wires of the conductor under various forms of loading. In particular, there was uncertainty regarding the magnitude of torsional shear stress in the wires relative to the principal axial stress, and whether this torsional shear was sufficient to explain the 45° inclined fatigue crack surfaces observed on Strands 2 and 3 of the incident conductor. Consequently it was agreed by the Conclave that their deliberations would be aided by a programme of laboratory tests using strain gauge rosettes to measure shear stress components in addition to axial stress components. This was expected to provide more information than was possible from the Havard laboratory tests and Vazey field trials, which only used uniaxial strain gauges and hence could only measure axial stress components. It was agreed that the laboratory tests should be carried out using specimens of original weathered conductor.	AEP, SAB, JDG, PM, DGH, JAV, BG, HB
1.2	The Conclave asked Potts to undertake the programme of strain gauged conductor laboratory tests on their behalf. The Test Specification and associated procedures were developed by Potts, but with draft review and mutual agreement by the entire Conclave. The testing programme was carried out at Swinburne University's Advanced Structures Laboratory, under the direction of Potts and his assistants. A test report (Potts Report #3) was issued to the Conclave, containing descriptions of the testing arrangements, listings of raw and processed measurement data and summary graphs of derived key conductor properties and loading versus stress state. This report did not provide an expert opinion *per se*, but rather provided the Conclave with objective data with which it could examine and deliberate on various outstanding issues.	AEP, SAB, JDG, PM, DGH, JAV, BG, HB
1.3	The principal purpose in reconvening Conclave 3 in March 2013 was to review and discuss the test data set out in Potts Report #3 and to review its implications for the various outstanding issues arising from the previous Conclave Report, which the laboratory tests had been conceived to address. The testing programme was not intended to test for and gain closure between experts on every outstanding issue. Rather it was intended to resolve the particular issue of the magnitude of torsional shear stress in the wires relative to the principal axial stress and its potential to explain the 45° inclined fatigue crack surfaces on Strands 2	AEP, SAB, JDG, PM, DGH, JAV, BG, HB

[37] Ibid section 13.

	and 3 (refer Sections 7.19.2 in First Supplementary Report of Conclave 3) and the conductor loading conditions under which these stresses could occur.	
1.4	With regard to the conductor loading conditions which could produce these stresses in the wires, this led to consideration of the following related issues: • Excitation of torsional harmonics within the conductor (refer Sections 9.18-9.19 and 10.1-10.2 in First Supplementary Report of Conclave 3, dated 15 February 2013). • Further review of the Vazey wind data with regard to correlation of stress ranges with Aeolian VIV (Vortex--Induced Vibration) excitation (refer Sections 9.6 and 12.2 in First Supplementary Report of Conclave 3). • Further review of the Vazey wind data with regard to the occurrence of higher tensile stress ranges arising from higher wind speeds at the Pentadeen Spur not measured during the field trial period (refer Sections 7.12-7.19 and 9.8-9.10 in First Supplementary Report of Conclave 3). • Examination of stress range threshold and number of cycles required for failure in terms of the likely occurrence of these stress ranges as a function of wind speed events (refer Sections 12.5-12.6 and 9.8-9.10 in First Supplementary Report of Conclave 3).	AEP, SAB, JDG, DGH, JAV, PM, BG, HB
1.5	It was not intended to re-open for discussion any and all issues which had been considered and reported on by the two prior Conclave 3 reports.	AEP, SAB, DGH, JAV, BG
1.6	However, just prior to reconvening Conclave 3 a further supplementary report was produced by Better (Supplementary Report #2 'Further Comments on Valley Span Testing Pentadeen Spur – Kilmore East' 28th February 2013) which sought to re-examine the 'Transient Events' covered under Sections 7.29-7.34 in First Supplementary Report of Conclave 3. Whilst the Better Report had been delivered without prior notice, nor time for the experts to give advanced evaluation before reconvening of the Conclave, it was agreed that it should be discussed within the Conclave, though leaving open the opportunity for experts beyond the Conclave to produce formal considered responses to the issues raised by Better.	AEP, SAB, DGH, JAV, BG
1.7	The test data set out in Potts Report #3 produced some differences in conductor mechanical properties compared to those estimated by Potts using classical cable mechanics theory. In some instances the values were significantly different. Potts was given approval by the Conclave to review and revise calculations and associated opinions based on these superseded conductor mechanical properties (as presented in Potts Report #2), which were to be reported beyond this Conclave Report. It was also requested that Potts	AEP, SAB, JDG, DGH, JAV, PM, BG, HB

	should, in this additional Report, review the correlation between the Vazey and Bureau of Meteorology (BoM) wind data records, to consider the long term wind speed statistics and how they might impact on the number of higher wind events and associated estimated higher cyclic stress ranges.	
1.8	With due regard to the above-listed issues addressed by the reconvened Conclave, this report has the following sectional structure: • Cable Mechanics — Review of Potts Report #3 and implications of cable mechanics estimates of the stress state within the conductor under various loading conditions [Section 2]. • Fatigue Fracture Plane — Review of the magnitude of torsional cyclic shear stresses in the wires relative to the principal axial stress and their potential to explain the 45° inclined fatigue crack surface on Strands 2 and 3 [Section 2 continued]. • Torsional Harmonics — Address the potential for excitation of torsional harmonic response within the conductor with resultant amplified torsional shear stresses [Section 3]. • Conductor Self-Damping — Review the influence of new and old conductors on constructional self-damping and its potential impact on the vibration displacement amplitude under Aeolian VIV [Section 4]. • Transient Events — Reconsideration of the transient 'impulsive' events found by Vazey and their likely attribution to Aeolian excitation or other sources [Section 5]. • Conductor Frequency Amplitude — Re-evaluation of Vazey Field Trial data, with filtering of low frequency and impulsive events, to focus on Aeolian VIV response [Section 6]. • Different Types of Observed Conductor Vibration — Differentiate between various forms of dynamic vibration response exhibited by the conductor, their motion amplitudes and frequency bands and the likely influence of spiral dampers on their response [Section 7]. • Examination of the cyclic stress threshold for crack propagation to commence and continue to grow and the number of different load cycles required to reach a given crack depth, under a variable amplitude load spectrum using further AFGROW fracture mechanics simulations. The variable amplitude loading spectrum had differing numbers of cyclic stresses, with varying ranges. [Section 8]. • Each section sets out the Conclusions relating to the issues raised therein. As such there is no separate section	AEP, SAB, JDG, PM, DGH, JAV, BG, HB

	setting out a further summarized collation of conclusions at the end of the report.	

[38]

121 It is unnecessary to go through the report in detail, save to draw attention to the sections related to possible excitation of torsional harmonics and different types of observed vibrations. The torsional harmonics section commenced with the following observations:

3.1	The excitation of torsional oscillations at the natural frequencies of the conductor could in instances lead to a magnification of the stress ranges in the torsion mode over the inherent torsional loads that could normally be induced in the helical conductor by tensile and bending oscillations alone.	AEP, SAB, PM, JAV, BG
3.2	The SWER conductor is subject to excitation of numerous transverse vibrational harmonics, whether they be by low frequency swinging oscillations or cross-flow aeolian VIV. With each flexure cycle, there will be two resultant torsional cycles. If the frequency of the torsional loading imparted by the flexural action is at or close to a torsional load harmonic (i.e. torsional harmonic at twice the frequency of the flexural harmonic), there will be the propensity to leak flexural mode harmonic energy into a corresponding torsional mode with approximately twice the natural frequency. The bandwidth of overlap between the driving tensile mode's frequency and the nearest torsional mode's frequency that could be sympathetically excited will depend on the constructional damping of the conductor.	AEP, PM, JAV, SAB
3.3	It is understood that when a dynamic system is excited at frequencies around a natural frequency there is opportunity for the presence of this natural frequency under conditions of low damping to excite resonance and thereby to significantly increase (i.e. dynamic amplify) the stress range. In this context, the lower natural frequency of the torsional mode, shown to be possible since the stiffness of the conductor has been found to be lower than classical cable mechanics predicted, would suggest that torsional cyclic vibration could be excited by tension-tension cyclic loads or bending vibrations more easily than was expected from the results of previous Potts analysis.	SAB, AEP, PM, JAV, BG, HB
3.4	In the First Supplementary Report of Conclave 3 (Section 9.18) it was postulated that the first torsional harmonic of 1.83 Hz, calculated employing the original Cable-Simulator estimate of conductor torsional stiffness, would potentially be excited by the 10th and/or 11th flexural harmonic with	AEP

[38] Conclave 3 third report dated 21 March 2013, section 1.

	frequencies of 1.03 and 0.94 Hz.	
3.5	The lower torsional stiffnesses of the conductor measured in the Potts Tests would potentially increase the likelihood that tension and/or bending oscillations sympathetically exciting torsional modes.	SAB, AEP, PM, JAV, BG, HB
3.6	Considering bending in isolation, the revised calculations to this effect indicated that the: • first torsional harmonic of 0.67 Hz would potentially be excited by the 4th flexural harmonic with frequencies of 0.34 Hz. • second torsional harmonic of 1.34 Hz would potentially be excited by the 8th flexural harmonic with frequencies of 0.69 Hz. • third torsional harmonic of 2.01 Hz would potentially be excited by the 12th flexural harmonic with frequencies of 1.03 Hz.	AEP
3.7	Due to the nature of the field trials on the Pentadeen Spur, torsional stresses were not measured, and any torsional component of stress could not be observed in isolation from the measured axial stress results of that testing. Accordingly, it was not possible to detect whether or not a torsional harmonic was sympathetically excited at any time during the Vazey field trials.	AEP, PM, JDG, SAB, JAV, BG, HB
3.8	In the absence of field measurements of dynamically amplified torsional stresses, the Conclave considered three practical examples to attempt to bound the potential magnitude of torsional stresses.	AEP, PM, JDG, SAB, JAV, BG
…		…

[39]

122 It then set out details of the examples considered, being low frequency span flexural mode of 1.03 Hz, Aeolian VIV at 55 Hz, and Aeolian VIV at 145 Hz.

123 The report then stated that these examples 'suggest the following':

3.26	The required magnitudes of rotational displacements necessary to induce shear stress ranges sufficient to explain the inclined fatigue crack planes in Strands 2 and 3 at the end of the helical termination are considered impractical at the oscillation frequency and harmonic modal loop lengths over which they would be required to act in the field. This makes it difficult to attribute torsional oscillation coupled with bending as significantly contributing to fatigue in the conductor.	SAB, AEP, JAV
3.27	*Based on the information currently available to the Conclave, we are not able to clarify the source of the principal cyclic stresses that*	SAB, AEP, PM, JDG,

[39] Ibid section 3.

	would explain the 45º inclination of the observed inclined fatigue crack surface.	JAV, BG, HB
3.28	*Given that in order to produce the 45º inclined fatigue fracture plane requires a stress field that is dominated by torsional stress cycles, there is currently no identified mechanism that can wholly explain these fatigue crack planes in Strands 2 and 3 of the incident conductor at the end of the helical termination.*	SAB, AEP, PM, JDG, JAV, BG, HB

[40]

124 The last two paragraphs were agreed to by all seven experts.

125 The section addressing different types of potential dynamic loading from wind was as follows:

		Experts who agree
7	**Different Types of Observed Vibration**	
Wind Forces		
7.1	Wind action on the span of conductor generates a range of responses which in turn produce different static and dynamic stresses in the conductor. Only dynamic stresses at the end of the helical termination are of interest with respect to the fatigue failure of the incident conductor, though this will be greatly influenced by the dynamic response of the conductor span (or parts thereof) under different wind excitation regimes.	DGH, HB, AEP, SAB, JDG, PM, BG, JAV
7.2	The span can be considered as a pendulum supported at the poles at each end in its gross response to wind force. The conductor swings out to a quasi-static mean position in response to the aggregate wind force applied at any given time. This increases the tensile stress in the conductor at all points across the span.	DGH, AEP, SAB, JDG, PM, JAV, BG, HB
Buffeting Excitation		
7.3	Wind varies continuously in space and time, the variation increasing as the mean wind speed increases. The wind pressure on the conductor from the wind is therefore distributed unevenly across the span and with the conductor being a highly flexible cable, this results in different cyclic waves forming across the span, which can coalesce into a coordinated, relatively low frequency horizontal sinusoidal vibration, superimposed on sag changes responding to pressure changes. These low frequency motions persist until the wind changes, whereupon a new wave pattern can be established. This is termed as buffeting behaviour, and introduces horizontal bending stresses and changes in tensile stresses across the conductor, including at the end of the helical fittings.	DGH, HB, AEP, SAB, JDG, PM, JAV, BG

[40] Ibid (emphasis added).

7.4 The word 'buffeting' (or any word with the root 'buffet-'-) occurs only 7 times in the 600-page EPRI Transmission Line Reference Book: Wind-Induced Conductor Motion, Second Edition, 2009, one of these being in the index. None of these references indicate that buffeting has been known to cause fatigue of either conductors or support structures. The only references to possible damage as a result of buffeting are in respect of fibre optic cables (section 1.3.4) and conceivably clashing of conductors (section 4.5.8). Three of the references (sections 7.6.4 and 7.6.5) specifically state that buffeting is **not** a significant concern for fatigue of support structures because the natural frequencies do not match. The remaining one reference speaks only of motion and does not mention possible damage. While it is acknowledged that the EPRI publication focuses mostly on larger diameter conductors, this apparent lack of literature on fatigue of any kind caused by buffeting could be regarded as a contrary indication in respect of any hypothesis that buffeting can explain the Pentadeen Spur failure. JDG, PM, HB, DGH

7.5 Buffeting could be a source of loading. The absence of evidence — in this case in a reference book that focuses on conductors of a different type is no evidence of absence. Any positive cyclic stress, if sufficient can add to the fatigue damage of a susceptible conductor. In thicker conductors VIV is probably the dominant source of fatigue damage whereas this does not appear to be the case, on the face of it, in the three strand SWER conductor. SAB, JAV

7.6 The Vazey field trials measured these low frequency changes of stress. The cyclic stress levels measured thus far during the course of the Vazey field trials were not sufficient to contribute significantly to the fatigue crack growth. DGH, PM, HB

7.7 There is disagreement on this last point in paragraph 7.6. The AFGROW modelling work by Barter has been argued to indicate that some hundreds of cycles with stress ranges of 70 - 90MPa in combination with lower magnitude stresses upwards of 30MPa could contribute to crack growth (refer to Section 5 of Conclave report 15th February 2013 for context and clarification). Stress ranges of this magnitude have been observed in the field trial, and with the work by Potts it seems likely that winds (higher than those observed during the field trial) do exist and would most likely contribute to even higher stress ranges. The Barter modelling will be discussed in more detail in Section 8 below. AEP, JAV, SAB, BG

Aeolian Vibration

7.8 Vortices are shed behind a conductor in steady horizontal wind flow, which impart alternating upward and downward pressures on the conductor. When the frequency of the alternating forces approaches a natural resonant frequency of the span, vertical bending waves are initiated across the span. These are aeolian vibration waves and the amplitude of the waves can build up when the DGH, HB, AEP, SAB, JDG, PM, JAV, BG

wind is steady to a maximum value when the energy from the wind is balanced by the energy absorbed by the self damping of the conductor and any added dampers. The bending stresses from this aeolian vibration are detected in the field trials by strain gauges attached to individual wires of the test conductors. Changes in the sustained wind speed lead to a change of frequency of the vortex shedding and corresponding to excitation of a new series of bending waves across the span.

7.9 The stresses measured in the field trial from this phenomenon were found to be insufficient to cause or contribute to the fatigue crack growth. The maximum stress ranges (that were clearly associated with aeolian VIV) observed in the trial to date have been 12 to 14 MPa. DGH, AEP, JDG, PM, JAV, BG, HB, SAB

7.10 As the result of differences between the incident conductor and the trial conductor spans, it is possible that higher magnitudes of aeolian vibrations could have occurred in the incident conductor that were not experienced during the field trial. We do not have sufficient information to permit quantification of how much higher these magnitudes might have been. However, if for example it is believed that the threshold stress range for commencement of fatigue cracking is 90 MPa then it would be necessary for the incident conductor to have experienced a 7- or 8-fold increase in VIV-associated stresses before this VIV could have contributed to fatigue. JDG, HB, SAB, DGH, JAV

Torsional Oscillation

7.11 Long flexible bodies, like the conductor on the Pentadeen Spur span are also able to oscillate in torsion. This has been reliably observed as a result of aerodynamic forces during galloping on conductors with an asymmetric coating of ice. It also occurs on un-iced conductors with non-circular sections. This trefoil shaped conductor may be sensitive to torsional vibration due to wind directly, though there is no 3 wire SWER data to support the potential susceptibility of the conductor to such wind excitation. DGH, HB, AEP, JDG, PM, JAV, BG, SAB

7.12 Torsional vibration may also occur as a consequence of sympathetic harmonic excitation when one of the torsional natural frequencies coincides with an excited lateral mode, thereby exciting the torsional harmonic. This mode of vibration cannot be detected by the strain gauges on the field test conductors. DGH, HB, AEP, JDG, PM, JAV, SAB

7.13 A case study of the likely amplitude and modes of torsional vibration indicated that the stresses that can be generated by this motion are not significant with respect to the fatigue crack growth. DGH, HB, AEP, JAV

Impulsive Events

7.14 Conductors may undergo impulse loadings from common phenomena that affect overhead power lines. Examples are: Galloping motions which are the violent response to wind acting on an ice layer on the conductor, ice dropping DGH, AEP, SAB, JDG,

	when ice on the whole span can release at once, intense hail storms, impact from flying objects during wind storms, and bird strikes.	JAV, BG, HB
7.15	There have been studies of the first two effects, but these would not apply to the Pentadeen Spur span as icing is not expected in this location. The rarity of the other events leads to there being very little information on the stresses imparted to the conductors.	DGH, AEP, SAB, JDG, JAV, BG, HB
7.16	Also the limited number of impulses recorded in the field trials suggests that the impact on fatigue of the conductor at the end of the helical fitting would not be significant in terms of the cumulative number of cyclic stress ranges.[41]	DGH, AEP, SAB, JAV, BG

126 It can be seen that there was substantial agreement as to the theoretical potential of Aeolian VIV to cause dynamic loading upon the conductor but that the field tests undertaken did not measure stresses of this kind sufficient to cause or contribute to fatigue crack growth. Furthermore, no mechanism could be identified which satisfactorily explained the fatigue fracture planes found in strands 2 and 3.

127 The plaintiff's thesis postulated a causal role by Aeolian VIV and was refined and rearticulated as the case progressed but it remained, on one view, substantially unverified.

128 In a further report filed on 28 March 2013, Dr Potts addressed the possibility of the coupling of stresses resulting predominantly from low frequency vibration.

129 On 1 May 2013 the plaintiff's solicitors proposed that dynamic testing be undertaken by Dr Gates. The Court permitted that testing to proceed and, in consequence, Dr Gates filed a fifth report. The testing was directed in part to the question of whether coupling could occur in consequence predominantly of Aeolian VIV. The conclusions which were able to be drawn from the testing were hotly disputed and it cannot be said to have demonstrated the cause of the fracture conclusively.

130 The plaintiff's primary position was that the 45° fracture plane was best explained by coupling between Aeolian VIV (in the vertical plane) and a torsional (twisting

[41] Ibid section 7 (emphasis added).

motion) harmonic, generating cyclic torsional stress. The coupling theory can be summarised as follows:

> (a) The conductor would be induced by the wind to vibrate in the vertical plane (bending vibration – classical Aeolian VIV).
>
> (b) The resulting bending vibration would occur at certain specific frequencies, determined by the intrinsic properties of the conductor and the wind speed.
>
> (c) The bending vibration would be the primary vibration mode.
>
> (d) The conductor can also vibrate in twisting (torsional) modes at certain specific frequencies. Those frequencies will also be determined by the intrinsic properties of the conductor.
>
> (e) Energy can leak (transfer) from the bending vibration mode to the torsional mode.
>
> (f) The torsional mode is then the secondary vibration mode. The parties did not agree about what conditions needed to be satisfied to cause secondary vibration. The plaintiff's position was that it can occur when the frequencies match or when they are at multiples of each other. …
>
> (g) When a secondary mode is excited (here, the torsional mode), the resulting vibration is amplified such that the stress experienced by the conductor is greater than in the primary (bending) mode.

131 There was a real risk that the Court would not be persuaded of this theory. Amongst other considerations:

(a) It was not the position arrived at by the conclave and joint report process.

(b) It was not a position deriving any agreed support from the four week joint evidence session.

(c) It was not satisfactorily supported by the Gates tests. At its highest, fewer than 3 per cent of the tests (10 out of 355 tests) supported the plaintiff's theory.

(d) The conclusions that could be drawn from the Gates tests were strongly disputed. A number of the experts were of the view that the Gates testing had so many limitations in its design and methodology that the results were

unreliable in any event, or that his observations were an artefact of the way the test was designed.

(e) There was a dispute in principle between the experts as to whether coupling between Aeolian VIV and torsional modes of vibration could ever result in the stress levels required to fail the conductor.

(f) It was difficult to see torsion, as the secondary motion, could dominate the stress field such that the crack would propagate at 45°. Even if harmonics could alter the fracture plane, it was contentious that it could alter it sufficiently.

(g) There was no direct evidence that coupling of this kind occurred.

132 There was also a risk that the Court would not be persuaded that crack propagation was attributable to Aeolian VIV more generally, whether by coupling or some other mechanism. Some of the aforementioned considerations go to that risk. Further, amongst other factors:

(a) The Valley Span tests undertaken by Mr Vazey observed and measured Aeolian VIV but not torsional stress.

(b) The Vazey field test data indicated that the magnitude of stress from Aeolian VIV would not have been sufficient to propagate the fractures.

(c) Aeolian VIV was known within the power supply industry to generate vertical motion causing bending stress cycles, not twisting or torsional stress cycles.

(d) There was no evidence of industry experience with conductors of the kind in issue failing in the way postulated by the plaintiff. Conversely, there was industry experience of Aeolian VIV causing fatigue and failure in other types of power line infrastructure such as bundled cables and aluminium conductors.

(e) The proposition that Aeolian VIV caused cyclic torsional stress was described by one of the plaintiff's own experts as generally 'violat[ing] the laws of physics'.

133 Ultimately, the plaintiff argued that no other credible source of cyclic stress capable of causing the observed fractures other than Aeolian VIV had been identified, particularly considering the high number of cycles that would have been required.

134 Nevertheless, it is plain that the plaintiff was at risk that her case as to causation of the conductor failure would be rejected.

135 It is true that a court may be satisfied of a causal mechanism on the balance of probabilities on the basis of a body of circumstantial evidence as a whole even when that mechanism cannot be established with scientific certainty.[42]

136 Nevertheless, in the present case the whole of the relevant circumstantial evidence was available to the experts and it was not relevantly supplemented by matters analogous to lay evidence as to the experience of before and after medical symptoms. It would be difficult for a court to conclude that it should arrive at a conclusion other than in accordance with the expert evidence.

137 As the plaintiff's counsel put to me in submission, the question of the causal significance of the absence of dampers on the Valley Span was 'beyond a shadow of a doubt the most controversial tortuously examined issue in this entire epic litigation.'

138 The Court may have concluded that it was possible Aeolian VIV was a material cause of the conductor's failure but that it could not be satisfied that but for such vibration the conductor would not have failed when it did.

139 Alternatively, the Court may not even have been persuaded that there was a credible

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42 *Dahl v Grice* [1981] VR 513, 522 (Gobbo J), 514 (Young J) and 515 (Kaye J); *Spence v Gomez* [2006] VSCA 48 [26] (Maxwell P), [78] (Nettle JA), [59] (Chernov JA).

case that Aeolian VIV played a part in the failure of the conductor at all.

140 If the Court were to conclude that it could not be satisfied of the cause of the conductor failure save to say that the underlying cause was lightning strike and that wind dynamics propagated fatigue, then the plaintiff faced material problems with respect to causation in respect of each of the cases she alleged against SPI and also with respect to the case against UAM.

141 I turn then to analysis of each of these cases.

Targeted dampers (retro-fitting)

142 There was extensive controversy at trial as to the existence and definition of a duty of care on the part of SPI with respect to the operation and maintenance of the Valley Span conductor. For present purposes it is unnecessary to enter into this dispute, save to observe that in the circumstances of the present case there must be significant doubt as to whether any such duty (if it existed) extended to one to avoid pure economic loss.[43]

143 I will assume (but do not decide) that in the circumstances in issue SPI owed a class of persons including the plaintiff and other group members a duty at common law to take reasonable care in the operation and maintenance of the Valley Span conductor to avoid causing them personal injury, loss and damage as a result of its failure and consequent ignition of fire.

144 In so assuming, I will also pass over the arguments put by SPI that the content of any duty it owed at common law was confined by the regulatory, economic, and associated technical framework within which it operated.

145 The plaintiff also alleged a statutory duty derived from s 75 of the *Electricity Safety Act 1998*[44] which required SPI to take reasonable care to ensure that all parts of its

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43 Cf *Perre v Apand* [1999] 198 CLR 180.

44 Section 75 provides:

> **75 General duties of owners or operators of complex electrical installations and railways**
>
> (1) An owner or operator of a complex electrical installation must take reasonable care to

network were safe and operating safely.

146 Whether the section does create a statutory duty giving rise to private rights of action for damages need not be resolved.[45] SPI contended that the provision is simply directed to the general good rather than intended to benefit or protect a particular class of the public. I will not address this issue further because it is difficult to see that the plaintiff could succeed on the basis of the statutory duty alleged unless she also succeeded with respect to a breach of common law duty.

147 The plaintiff's case of breach of duty in the first instance against SPI was put on the basis that SPI breached its duty of care by failing to retro-fit spiral dampers to the Valley Span conductor. Spiral dampers are small pieces of plastic which are fitted at the ends of the conductor and inhibit Aeolian VIV. Their potential role is identified in the conclave reports to which I have referred in some detail above.

148 A claim in negligence by reason of failure to take precautions is governed by ss 48 and 49 of the *Wrongs Act 1958*:

> **48 General principles**
>
> (1) A person is not negligent in failing to take precautions against a risk of harm unless—
>
> (a) the risk was foreseeable (that is, it is a risk of which the person knew or ought to have known); and
>
> (b) the risk was not insignificant; and
>
> (c) in the circumstances, a reasonable person in the person's position would have taken those precautions.

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ensure that all parts of the complex electrical installation that it owns or operates—
(a) are designed, constructed, operated, maintained and decommissioned in accordance with the regulations; and
(b) are safe and operated safely.
(2) An owner or operator of a railway must take reasonable care to ensure that all parts of the supply network of the railway that it owns or operates—
(a) are designed, constructed, operated, maintained and decommissioned in accordance with the regulations; and
(b) are safe and operated safely.

45 Cf *O'Conner v SP Bray Limited* (1937) 56 CLR 464, 477-8 (Dixon J); applied in *Sovar v Henry Lane Pty Ltd* (1967) 116 CLR 397 especially, 405 (Kitto J); *Stuart v Kirkland-Veenstra* (2009) 237 CLR 215, 263-4 [140-4] (Crennan and Kiefel JJ) (note also at 252-3 [107-10] per Gummow, Hayne and Heydon JJ).

(2) In determining whether a reasonable person would have taken precautions against a risk of harm, the court is to consider the following (amongst other relevant things)—

(a) the probability that the harm would occur if care were not taken;

(b) the likely seriousness of the harm;

(c) the burden of taking precautions to avoid the risk of harm;

(d) the social utility of the activity that creates the risk of harm.

(3) For the purposes of subsection (1)(b)—

(a) insignificant risks include, but are not limited to, risks that are far-fetched or fanciful; and

(b) risks that are not insignificant are all risks other than insignificant risks and include, but are not limited to, significant risks.

49 Other principles

In a proceeding relating to liability for negligence—

(a) the burden of taking precautions to avoid a risk of harm includes the burden of taking precautions to avoid similar risks of harm for which the person may be responsible; and

(b) the fact that a risk of harm could have been avoided by doing something in a different way does not of itself give rise to or affect liability for the way in which the thing was done; and

(c) the subsequent taking of action that would (had the action been taken earlier) have avoided a risk of harm does not of itself give rise to or affect liability in respect of the risk and does not of itself constitute an admission of liability in connection with the risk.

149 It was disputed inter alia that the risk of harm to the Valley Span consequent upon Aeolian VIV was one of which SPI knew or ought to have known. It was also disputed that a reasonable person in the position of SPI would have taken the precautions which the plaintiff asserted with hindsight it should have.

150 Whilst the theoretical capacity of dampers to mitigate Aeolian VIV was not in dispute, SPI argued that industry knowledge about Aeolian VIV identified conductors of different types from that here in issue as at risk of damage or failure

from Aeolian VIV.

151 The plaintiff argued that the industry learning was broader than contended for by SPI and that SPI's own relevant design documentation contemplated the fitting of dampers by 1992 at the latest.

152 Even making the assumptions which I have as to duty, looked at in the broad, the plaintiff ultimately faced a risk that the Court would not be persuaded of her case. Amongst other things there were issues on the evidence as follows:

- as to whether the industry literature or SPI's experience (and that of the State Electricity Commission of Victoria ('SECV') before it) indicated that a 3/12 galvanised steel conductor was at risk of damage and fatigue failure from Aeolian VIV;
- as to whether the SECV and SPI best practice limited the need for the application of dampers to those circumstances where Aeolian VIV was severe;
- as to whether standard design drawings were intended to be utilised in cases of severe vibration only;
- as to the applicability of various iterations of an industry guideline known as 'Code of Practice for Overhead Line Construction' and, in particular, whether the recommendations it made as to fitting of spiral dampers were restricted to the context of clamps or other conductor fittings less flexible than the helical termination at pole 39;
- whether the Code was applicable in circumstances where its foreword indicated that it was not intended to require retro-fitting;
- whether SPI should have the retro-fitted dampers after it took possession of the network in 1994, when SECV had no prior practice of fitting such dampers and, if so, whether a targeted retro-fitting of dampers across the system would have required retro-fitting of the Valley Span in time to affect the failure of the conductor;
- whether the evidence of Dr Havard, UAM's expert, should be

accepted, that the exceptionally long length of the Valley Span conductor gave rise to a requirement to fit spiral dampers which should have been recognised.

153 These and other issues gave rise to a risk that the plaintiff would not establish breach of duty by reason of failure to retro-fit spiral dampers to the Valley Span.

154 In turn, it follows from what I have already set out with respect to causation that there was a real risk the Court would also not in any event accept that the failure to fit dampers was a material cause of the fire.

155 Section 51(1) of the *Wrongs Act 1958* required the plaintiff to prove that SPI's negligence was a necessary condition of the occurrence of the harm.[46]

156 Section 52 further provided that in determining liability for negligence, the plaintiff always bears the burden of proving, on the balance of probabilities, any fact relevant to the issue of causation.

157 In addition to the fundamental dispute as to whether Aeolian VIV was an actual cause of the failure of the conductor, there were further issues of causation with respect to the effectiveness of dampers.

158 The evidence was that dampers did not ameliorate stress cycles from low frequency vibrations, thermal changes or impulsive events.

159 Insofar as Aeolian VIV was concerned, it was unknown when the quench cracks formed in the conductor and, as a result, it was unknown when fatigue cracks commenced to propagate. If the quench cracks occurred a considerable time before dampers were retro-fitted then the potential effectiveness of the dampers was disputed and uncertain. Dampers may have delayed but not necessarily prevented failure. They may have had no material effect on the fatigue process.

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[46] Argument was also put on the basis of s 51(2) but that argument also faced fundamental evidentiary risks as to whether Aeolian VIV materially increased the risk of harm and a further fundamental problem in bringing the case within 'established principles' – see *Powney v Kerang and District Health* [2014] VSCA 221 and the cases there cited.

160 More fundamentally, the plaintiff faced an underlying risk that the case as to the causal role of Aeolian VIV would itself would fail and that she would therefore not establish that the failure by SPI to retro-fit dampers was a necessary condition of the occurrence of the failure of the Valley Span.

Targeted replacement

161 The plaintiff next put her case on the basis that the Valley Span had been retained in service too long having regard to the nature of its construction and location in a relatively high risk area. This case was styled the 'asset management' or 'targeted replacement' case.

162 The case for the plaintiff was informed to a significant degree by the evidence as to risk upon which it relied in the Aeolian VIV case.

163 The need for asset replacement programs was supported by evidence which indicated that visual inspection might not detect significant fatigue faults and the plaintiff's case as to Aeolian VIV asserted that the Valley Span was at high risk of fatigue from this cause.

164 SPI contended that the risk factors for the Valley Span were more limited than the plaintiff alleged and maintained that in the first instance it addressed those risks by implementing an inspection program which monitored the condition of the conductor (routine conductor replacement).

165 SPI also contended that it went beyond reactive maintenance by developing programs for high risk power lines and that the Valley Span was properly treated as not having a high priority for replacement (periodic conductor replacement).

166 The basis on which the parties joined issue raised questions of fact as to relative levels of risk indicated by asset data available to SPI, the adequacy of the replacement programs adopted or proposed by SPI, and whether reasonable practice would have required replacement of the Valley Span prior to February 2009 as a

necessary component of reasonable asset management.

167 There was dispute about the interpretation of the records contained in the database Power-On but the plaintiff was able to adduce evidence of more than 70 conductor fracture events per annum potentially reflecting fatigue failures.

168 A similar failure rate for wooden poles had led to an extensive review of SPI's pole management strategies in the mid-1990s.

169 Further, as the plaintiff's expert, Dr Hastings explained, the seriousness of the potential consequences of conductor failure meant that this order of failures could not simply be discounted on the basis that it was small in proportion to the overall size of the network.

170 On the other hand, Mr Clark, a lay witness called by SPI, carried out an analysis of historical data which showed that the majority of steel conductor failures on SPI's distribution network occurred in areas proximate to the coast, that 3/12 galvanised steel conductors are less susceptible to failure than larger strand conductors and aluminium conductors, and that there is no consistent relationship between length of span and likelihood of failure.

171 On his analysis, 62 per cent of the entire high voltage network would be replaced before the Valley Span. If such a program had been commenced in 2001 replacing 500 kilometres a year, replacement of the Valley Span would have occurred in 2038.

172 Assuming, however, for present purposes, that the risk data was accepted as giving rise to a duty to adopt reasonable measures by way of reliability centred maintenance to address a systemic risk of conductor failure, the plaintiff still faced real difficulties in establishing breach of that duty.

173 The evidence was that SPI had an extensive and costly scheduled inspection program for its distribution network. It also responded promptly to reports of damaged conductors. Further, it was not unreasonable to repair rather than replace

some damaged conductors. Moreover, in addition to reactive maintenance practices, it had asset replacement programs.

174 The parties joined issue on the adequacy of these programs by reference to a range of factual considerations.

175 For present purposes it is sufficient to say that the plaintiff mounted a serious attack on the adequacy of the programs adopted by SPI.

176 Nevertheless, whatever view the trial judge took of the overall adequacy of SPI's asset replacement programs, the plaintiff still faced difficulty in establishing that the Valley Span would necessarily have been prioritised under any hypothetical targeted replacement scheme.

177 The plaintiff needed to identify the alternative management strategy which it was positively unreasonable for SPI to have failed to adopt and show that this strategy would have resulted in the replacement of the Valley Span before 2009.

178 A major problem confronting the plaintiff was the fact that both the Power-On data and the anecdotal evidence from SPI witnesses highlighted that conductor problems were most prevalent in coastal areas. It followed that a reasonable targeted replacement program implemented in response to the data the plaintiff relied on, would have prioritised coastal areas to some material extent.

179 Despite this general pattern, the plaintiff sought to persuade the Court that the Valley Span was such a conspicuously risky span that reasonable care required that its replacement be prioritised. The plaintiff emphasised that the Valley Span:

(a) was the 16th or 17th longest span in SPI's entire distribution network;

(b) among these longer spans, this was the 10th oldest span in the years leading up to 2009;

(c) was in a conspicuously high risk location for fatigue failure, being strung

between two hilltops across a wide valley in rolling hill country;

(d) was aligned west-east, and therefore perpendicular to the prevailing winds in the area;

(e) had no record of ever being fitted with vibration dampers;

(f) had evidence of significant historical damage, in the form of two separate mid-spans splices; and

(g) in the event of a pole top inspection, would have been seen to have

(i) a tie wire on pole 39; and

(ii) a misaligned helical wrap on pole 39.

180 There was a body of evidence which supported this view. Nevertheless, the significance of each of these factors was contentious and none of them in itself could be said to demonstrate high risk.

181 Moreover, the conductor itself was not heavily corroded, there was no Power-On record of a problem on the Valley Span over the period from 2002 and the span formed part of a feeder which evidence led by SPI indicated was one of the more reliable in its network. Replacement of the span would also involve resource allocation issues in circumstances where there were competing priorities.

182 Furthermore, the question of whether it was in a conspicuously high risk location for fatigue failure turned in part on the Court's view of the evidence led with respect to the Aeolian VIV case.

183 This aspect of the case again raised fundamental questions about causation. In final submission, SPI put it this way:

> 2008 The fundamental problem with the Plaintiff's conductor replacement case is that, but for a lightning strike, the Valley Span was unlikely to fail from fatigue. Lightning strike is not a failure mode that can be predicted, and thus cannot be prevented by any conductor

> replacement program or condition monitoring. The Plaintiff is therefore striving to identify risk factors unrelated to the Valley Span's actual failure mode in an endeavour to formulate a replacement program that would by coincidence have identified it for replacement.
>
> 2009 Under established asset management principles, the way to manage the risk of lightning strike fatally (but undetectably) damaging a steel conductor which may cause it to fail at some indeterminant [scil indeterminate] time in the future is not to replace it; that would be a never-ending and unworkable task. The identified way to manage it is to re-design the network for that particular risk if practicable to do so. The problem for the Plaintiff is that the only redesign to meet lightning strike risk of the above kind on SWER lines (and other steel conductors for that matter) is to underground them. That would eliminate fire ignition risk. As at 7 February 2009, no-one had suggested that as being practicable or economically viable. Even today, it is not proposed as a solution. The Plaintiff has (quite properly) balked (sic) at suggesting it in this proceeding as a reasonable precaution. It has instead suggested a wholesale replacement of more than half the steel fleet at vast cost. Even that level of replacement does not get over the redesign problem – the remaining conductors not replaced are subject to the same risk. The Plaintiff's aged based replacement program is not a precaution for the risk this case is about. Neither are the other replacement solutions the Plaintiff has identified. Its replacement case is misconceived at multiple levels.

184 The plaintiff's criticisms of SPI's procedures might be regarded as constructed with hindsight rather than fairly reflecting reasonable practice prior to the fire.

185 Whatever view the Court ultimately took of the very detailed evidence on this aspect of the case as a whole (which I have not sought to fully summarise), it follows that the plaintiff faced a real risk that the Court would not be persuaded that even if an enhanced asset replacement program was justified by the overall systemic risk of conductor failure due to fatigue, the Valley Span would necessarily have been prioritised and replaced prior to the fire.

The inspection case

186 I turn next to what was called the 'inspection case'. That case was put against SPI on the basis that its inspection system was inadequate, and against UAM on the basis that it failed to carry out an inspection of the Pentadeen Spur in February 2008 with due skill and care. In the further alternative, it was alleged that SPI was liable for the

negligence of UAM.

187 Although pleaded on a broader basis, the systemic inspection case came in the course of the trial to be focussed upon the intervals of recurrent scheduled inspections.

188 SPI took over a system from the SECV under which its distribution poles and pole top assets were inspected on a three-yearly basis.[47] SPI reduced that frequency in 2000 to five yearly inspections for wooden poles and 10 yearly inspections for concrete poles. The plaintiff contended that SPI was negligent in making this change without a proper risk assessment of the ramifications of the change for the safety of pole top assets including, in particular, conductors.

189 SPI undertook a study relating to wooden poles before altering its inspection scheduling but did not undertake a similar study with respect to the implications for the safety of distribution equipment upon the poles. SPI focussed on the data relating to wooden poles because it determined that wooden poles were the asset with the shortest failure interval. The plaintiff contended that this approach did not adequately address risks of conductor failure.

190 SPI's case was that:

(a) SPI undertook ongoing analysis of failure rates to ensure that a five year inspection cycle did not increase asset failure rates including rates for conductors;

(b) the evidence showed that the change in routine inspection cycles had no effect on the overall rate of conductor failure across the distribution network;

(c) the change in cycles was notified to, and not objected to by, the Safety Regulator; and

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47 A cycle implemented in response to the 1977 report of Sir Esler Barber.

(d) the five year inspection cycle accorded with industry practice in Victoria by at least 2004.

191 There was dispute as to the extent of SPI's analysis and understanding of modes and patterns of conductor failure both before and after the change in inspection cycle.

192 There was also dispute as to whether a 2005 study relied on by SPI satisfactorily demonstrated that the changes with respect to inspection intervals had not affected the overall rate of conductor failures.

193 More fundamentally, SPI's case as to industry practice was on its face difficult to overcome.

194 There was thus a live issue as to whether the change to a five year inspection cycle was in fact reasonable despite the failure to carry out a risk assessment of the type for which the plaintiff contended.

195 In addition, the plaintiff's case as to causation required the adoption of cumulative assumptions. First, it was submitted that extrapolating the three year cycle forwards, it was more likely than not that there would have been inspection in late 2008. Secondly, it was submitted that it was probable that the first break had occurred in strand 3 by this stage and that this would have been visible. Thirdly, it was submitted that identification of the break in the strand would have led to the conductor being made safe before February 2009, either by replacement or substantial repair.

196 The first step in the scenario required the Court to be satisfied that there would have been inspections in turn in about October 2002, October 2005 and October 2008. There had been inspections in October 1996 and October 1999 but there was a risk that the Court would not be satisfied that the three year cycle would have been so strictly adhered to on a continuing basis. SPI contended that the inspection record data overall did not establish the probability that inspections would occur with this regularity. There was a float of six months to allow flexibility in the cycle to allow

for efficient inspection schedules. It is also postulated a number of contingencies which might have led to delay in the inspection.

197 The second step in the scenario depended on the expert evidence. There was evidence supporting the plaintiff's case but there remained uncertainty about the date of the failure of strand 3. Perhaps the highest the evidence went was the opinion of Dr Barter, SPI's expert, who calculated that the time between the failure of strands 3 and 2 would have been about two per cent of the total life of the cracking in those strands. It is not known how old the cracks were, but in any case Dr Barter suggested based on physical observations that it was in the orders of months, and less than a year. However, expert opinion diverged on this question. The evidence as to causation in the Aeolian VIV case was again the context for this issue.

198 SPI also submitted that, in essence, the plaintiff's case was one of coincidence. The Valley Span poles had in fact been inspected less than 12 months before 7 February 2009. It was not the fact that the five year interval as distinct from a three year interval was adopted which was causally significant. The risk which eventuated was relevantly unconnected to the alleged breach of duty.[48]

199 This raises scope of liability questions under s 51(1)(b) and (4) of the *Wrongs Act 1958*.[49]

200 The matters which I have identified are sufficient to show that whilst it was attractive in its simplicity, the case based on change to intervals of inspection faced risks inter alia :

(a) that the adoption of the five year cycle would not be found to have been unreasonable practice;

(b) that the hypothesis of sequential three year cycles might not be accepted as

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48 *Leask Timber & Hardware Pty Ltd v Thorne* (1961) 106 CLR 33, 38-9 (Dixon CJ), 42, 45 (Kitto J); *Paul v Cook* [2013] NSWCA 311.

49 *Strong v Woolworths Ltd* (2012) 246 CLR 182, 193-4 (French CJ, Gummow, Crennan and Bell JJ); *Wallace v Kam* (2013) 250 CLR 375, 385 (French CJ, Crennan, Kiefel, Gageler and Keane JJ).

being able to be confidently made;

(c) that the uncertainty of the date of failure of strand 3 would prevent the judge from being satisfied of the occurrence of the event which it was hypothesised would have led to repair or replacement of the conductor prior to the fire; and

(d) that the plaintiff would fail on normative causation.

201 Without going to other issues raised by SPI, these matters suffice to show that there was a real risk that the scheduled inspection case might fail.

202 I will return below to the allegation that the UAM inspector failed to apply due skill and care when undertaking the last pre-fire scheduled inspection of the Valley Span just 12 months before the fire, in February 2008.

The OCR (oil-operated circuit recloser) case

203 The fourth way the case was put against SPI was directed to the settings of circuit breaker devices on SWER lines in the period immediately prior to Black Saturday.

204 The circuit breakers on the Pentadeen Spur line were oil-operated circuit reclosers or 'OCRs'.

205 The plaintiff contended that OCRs should have been suppressed at least on total fire ban days to minimise the risk of broken conductors starting fires.

206 Fault events affecting a conductor may be ongoing such as may occur when a conductor breaks and comes into direct and effective contact with the earth or, transient as when a bridge is temporarily created between two power lines by a tree branch or animal. Because transient faults are not uncommon, circuit breaker devices are commonly installed to operate in a way which gives transient failures the opportunity to clear.

207 A recloser is a fuse device which does not require manual re-setting or replacement after an initial trip (or sequence of trips). Instead, the recloser 'sees' the fault (when

the current spikes following the short circuit) and trips open the circuit for a pre-programmed interval or dwell period. It then recloses the circuit to enable current flow to resume. If it 'sees' overcurrent again, it repeats the sequence.

208 There were two types of recloser used across the SPI network at the time in question: OCRs and 'automatic circuit reclosers' or ACRs. OCRs were mostly deployed on SWER lines. They were factory programmed with a trip re-close sequence. That sequence would operate unless a linesman suppressed it manually using a long rod to tug a lever underneath the OCR box. This created a 'one shot to lockout' situation.

209 ACRs were used on 22 kV and high voltage fixtures. They were computerised and able to be controlled remotely.

210 An OCR on pole 29 was the only relevant circuit breaker device on the Pentadeen Spur line.

211 The plaintiff's case was that there was sufficiently likelihood of SWER conductors falling to the ground, sufficient likelihood that a falling conductor would be able to ignite a bushfire and, in consequence, a sufficiently grave risk to require SPI to ensure that OCRs such as that on pole 29 were switched to prevent re-closure in anticipation of total fire ban days. This would minimise the risk of a discharge of energy occurring upon re-closure and causing a fire.

212 The plaintiff further submitted that the most catastrophic warnings had been broadcast prior to Black Saturday and that, whatever the normal rules were, 'all bets were off' and every precaution should have been taken to minimise the risk of bushfire. In particular, the OCRs should have been adjusted so that they operated as the fastest possible type of fuse.

213 Because SWER lines utilise an earth termination from which the current flows back and completes its circuit to the isolating transformer by passing through the ground, the discharge of current from a broken SWER line may closely mimic the normal

function of the flow of current down the termination pole.

214 When the conductor broke near pole 39 it discharged electricity directly to the pole 38 stay where it lodged after recoiling. It also discharged electricity to the ground. The experts agreed that it was the discharge to the ground which started the fire but it was only the discharge to the stay wire which would have caused the fault to have been seen by the OCR.

215 SPI contended that:

(a) the chances of an OCR seeing a SWER fault at all were too low to make suppression a reasonably effective precaution against bushfire. The primary function of OCRs was to enhance reliability and co-ordinate with fuses, not reduce fire risks;

(b) if OCRs were suppressed, it would mean long-term outages for transient faults, which created other dangers for customers and the community;

(c) it was not feasible to target all OCRs in high bushfire risk areas, even on total fire ban days, because 99 per cent of all OCRs were in such areas;

(d) even if there had been a pre-fire program for targeted suppression, the Pentadeen Spur OCR would not have been targeted; and

(e) any requirement to suppress OCRs would, by parity of reasoning, require that ACRs also be suppressed and this would result not only in long-term outages from momentary faults, but also longer outages because there would be more 'down stream' lines to patrol, and problematic community consequences.

216 SPI emphasised that, before OCR suppression could have a role in bushfire suppression, three contingencies must be satisfied:

(a) the conductor must fall or detach;

(b) the conductor must contact an 'earth-stake', comprised by an object that

provides not merely a path to the earth, but such a good path that it creates a fault current well above the normal earth return (eg a steel fence post); and

(c) the contact with the earth-stake must occur sufficiently early before any fire starts that the first trip of the OCR would occur before the fire would have ignited.

217 SPI submitted that when a conductor falls to the ground the most likely event is that protection will not respond for tens of seconds if at all.

218 SPI's Senior Protection Engineer, Mr McClure, gave evidence in which he forcefully rejected any role for OCRs in bushfire mitigation planning.

219 It is unnecessary to address the evidence relating to OCRs in further detail. It is sufficient to say that the plaintiff was confronted with a real risk that the Court might conclude that the likely effectiveness of suppressing OCR re-close functions was so low that it was not reasonably required to be undertaken.

220 Further, as is implicit in what I have already said above, the plaintiff faced a necessary difficulty with respect to the issue of causation. In particular, it was necessary to persuade the Court that the fire did not start by reason of contact with the ground before the OCR's first trip consequent upon contact by the conductor with the stay wire.

221 This issue turned upon the circumstantial evidence. Whilst there was a basis for concluding that this is what occurred, the question was not free from doubt. It turned on consideration of a strongly contested matrix of facts. It was also the subject of conflicting expert opinion from Professors Russell, Blackburn and Baitch.

222 SPI contended that the precise sequence of events after the conductor broke on 7 February 2009 cannot be known but it is plain that the conductor recoiled, rebounded and ultimately looped over the stay wire over a period of at least several seconds. Whilst this occurred SPI submitted the likelihood was that the conductor

was arcing to ground on a millisecond basis, with each arc a complete potential ignition source. This view of the evidence was open.

223 The plaintiff thus faced a real prospect that she might not persuade the Court of this aspect of her case.

224 The two matters I have emphasised are not the only issues that arose with respect to the OCR case but they are sufficient for present purposes to demonstrate that the plaintiff faced a real risk that it would fail.

Nuisance

225 Nuisance is constituted by an unreasonable interference with interests in land. As such, a claim in nuisance could only be made for some group members and could not be made for personal injury. This fact alone diminishes the significance of nuisance in the overall assessment of the potential outcome of the group claims.

226 In *Burnie Ports Authority v General Jones Pty Ltd*,[50] the High Court held both that the ancient *ignis suus* rule no longer survived in Australian law and that the rule in *Rylands v Fletcher*[51] was subject to the general law of negligence. *Burnie Ports Authority* was concerned with an occupier's duty to a licensee in respect of a fire which started during welding operations upon the premises.

227 The circumstances in which the escape of a single fire will properly be characterised as constituting an actionable nuisance are not entirely clear. Generally speaking, a nuisance is constituted by a state of affairs which is either continuous or recurrent.[52] This was not a case of a conductor which discharged electricity on a continuing basis after it fractured or a fire which continued on SPI's property for some time before it escaped. It is to be contrasted with cases such as *Hargrave v Goldman*.[53]

228 It is sufficient for present purposes to say that the nuisance case raised a series of

50 (1994) 179 CLR 520.
51 (1868) LR HL 330.
52 *Hargrave v Goldman* (1963) 110 CLR 40, 59 (Windeyer J).
53 Ibid.

contentious issues including the following:

(a) SPI did not 'cause' or 'create' the fire in the sense usually recognised as the basis for a claim in nuisance. The underlying cause on the evidence was damage caused by lightning;

(b) SPI was not aware of the fatigue which preceded fracture of the conductor;

(c) it is difficult to see that SPI could be held liable for nuisance unless it ought reasonably to have known of that fatigue and the consequential risk of conductor failure and the risk of fire; and

(d) the question of constructive knowledge raises the same difficulties as those I have identified in discussing the case in negligence with respect to inspection and targeted dampers.

229 The plaintiff in effect postulated a case of strict liability whether or not the occupier was aware or should have been aware of the underlying risk.

230 The relevant principles were stated by the Judicial Committee of the Privy Council in the last case to go to it on appeal from this Court. In *Montana Hotels Pty Ltd v Fasson Pty Ltd*,[54] water had escaped over a period of time from a downpipe in a newly constructed building into an adjacent hotel basement. Lord Ackner said:

> The principles which their Lordships should apply are well established and little reference need be made to the well known authorities. *Sedleigh-Denfield v O'Callaghan*,[55] a decision of the House of Lords, is of course the *locus classicus*. It is only necessary to give the following excerpt from the speech of Lord Wright:[56] 'Though the rule has not been laid down by this House, it has I think been rightly established in the Court of Appeal that an occupier is not prima facie responsible for a nuisance created without his knowledge and consent. If he is to be liable a further condition is necessary, namely, that he had knowledge or means of knowledge, that he knew or should have known of the nuisance in time to correct it and obviate its mischievous effects. The liability for nuisance is not, at least in modern law, a strict or absolute liability. If the defendant by himself or those for whom he is responsible, has created what constitutes a nuisance and if it causes damage, the difficulty

54 (1986) 69 ALR 258.
55 [1940] AC 880.
56 Ibid 904.

> now being considered does not arise. But he may have taken over the nuisance, ready made as it were, when he acquired the property, or the nuisance may be due to a latent defect or to the act of a trespasser or stranger. Then he is not liable unless he continued or adopted the nuisance, or, more accurately, did not without undue delay remedy it when he became aware of it, or with ordinary and reasonable care should have become aware of it. This rule seems to be in accordance with good sense and convenience. The responsibility which attaches to the occupier because he has possession and control of the property cannot logically be limited to the mere creation of the nuisance. It should extend to his conduct if, with knowledge, he leaves the nuisance on his land. The same is true if the nuisance was such that with ordinary care in the management of his property he should have realised the risk of its existence.'[57]

231 If the plaintiff's case in negligence relating to inspection and targeted retro-fitting of dampers failed, the plaintiff also faced the real prospect of failing in the claim in nuisance.

232 SPI also maintained in the alternative a defence of statutory authorisation. It is unnecessary to canvas that defence in the light of the above conclusions.

The claim against UAM — negligent inspection

233 SPI engaged UAM to undertake scheduled asset inspections including inspection of the Pentadeen Spur line.

234 UAM disputed that it was under a duty of care to a class of persons including the plaintiff and other group members but for present purposes I shall assume that it was under a duty of care to the claimants to carry out the inspection with reasonable diligence.

235 In turn, although the case as to breach of that duty was put on a number of bases, I shall focus upon the allegation that the last inspection undertaken by UAM in February 2008 was performed negligently.

236 The plaintiff contended that the use of due and proper care required that the inspector use the image-stabilised binoculars provided to him to conduct a methodical scrutiny of the pole top assembly and that this had to be done at least

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57 *Montana Hotels Pty Ltd v Fasson Pty Ltd* (1986) 69 ALR 258, 261-2 (citations in original).

from two, and wherever possible, four positions around the pole.

237 Not surprisingly, the inspector himself had no recollection of inspecting this specific pole and hence the case turned on circumstantial evidence.

238 In the first instance, the plaintiff's case focussed on a series of statements made to Victoria Police which she submitted supported the view that the inspector used binoculars only if, on inspection with the naked eye, he found something which required a closer look. The inspector maintained he would have used the binoculars automatically as part of his usual practice.

239 Next, the plaintiff contended that there were a series of features able to be seen in 2009 and later photographs of poles 38 and 39, which probably existed prior to February 2008. In turn, it was submitted that these should have been reported following the February 2008 inspection but various matters were not. It was then submitted that if the features identified had been reported, the pole top condition of the conductor would have been more closely inspected and it would then have been repaired or replaced.

240 In summary, the plaintiff contended that the inspector should have identified and reported some or all of the following matters:

(a) the fact that one strand of the conductor had broken immediately adjacent to the helical wrap on pole 39;

(b) the fact that a significant split in the wood of pole 39 extended from the pole top down into, or very near, the strain assembly bolt hole;

(c) further, major splitting on the tops of poles 38 and 39;

(d) the fact that the pole 39 strain assembly bolt hole appear elongated;

(e) the fact that there was an incorrect configuration of the helical wrap in the thimble on pole 39;

(f) the fact that there was a significant visible 'mud staining' on the pole 38 pin insulator; and

(g) the fact that there were loose or missing coach bolts on pole 39 and that the pole 39 pole cap was loose.

241 In response, SPI submitted:

(a) as to (a), the plaintiff could not prove on the balance of probabilities that there was a hanging strand near pole 39 as at 25 February 2008;

(b) as to (b), (c), (d), (f) and (g), none of the alleged defects should have been reported because they did not affect the integrity of the pole top;

(c) as to (e), the plaintiff could not prove that the misalignment was visible to an inspector on the ground and the evidence suggested that it was not.

242 SPI further submitted that the evidence showed that even if one or more of the alleged defects had been reported (including some further matters it was said would have been discovered upon further maintenance undertaken in response to the initial inspection) only the broken strand would have led to replacement of the Valley Span or the pole 39 assembly.

243 There were, once again, potential 'scope of liability' and causation problems in the sequential reasoning involved in the plaintiff's case. Apart from the broken strand, the plaintiff's case in the first instance involved allegations of failure to observe circumstances which were not themselves causal of the ultimate failure of the conductor.

244 Insofar as the fractured strand was concerned, it was not suggested that prior to the fracture of strands 3 and 2, the inspector could have identified the fatigue which ultimately led to the fractures.

245 Further, there was significant uncertainty concerning the date of the break in

strand 3, to which I have already referred.

246 If the strand were not broken at the date of inspection, then there were real issues as to whether other defects were sufficient to trigger the requirements for which the plaintiff contended. Because it was not recorded, it might be inferred that no broken wire was observed by the inspector in February 2008, despite the fact that he spent some time carrying out a test upon the wooden pole. Nevertheless, the plaintiff submitted that the probability was that strand 3 had broken and a piece of it had fallen and was concealed in long grass.

247 In turn, if strand 3 were not broken by mid-2008 then the attendance of a maintenance crew to repair the other defects may not have resulted in the detection of the relevant fatigue in the conductor or in remediation by the relevant date.

248 The circumstantial case relating to the February 2008 inspection was also attacked on other bases but it is sufficient for present purposes to conclude that, for the above reasons, it faced some real risk of failure.

249 In addition (save for the case as to the broken strand), the plaintiff faced a risk that her case as to factual causation was based on coincidence with the alleged inadequacies of inspection relating to defects logically unconnected to the subsequent conductor failure.

250 There is another aspect of the case against UAM which it is convenient to note at this point. The possibility of judgment against UAM raised the prospect that it would be found to be a 'concurrent wrongdoer' within the meaning of pt IVAA of the *Wrongs Act 1958*. In turn, UAM may have been found solely responsible for a proportion of the ELPD claims.

251 Because of doubts as to UAM's capacity to meet a judgment of the scale in issue (to which I will return below), the plaintiff sought to avoid this outcome. First, the plaintiff relied on the agency exception contained in s 24AP(b). Secondly, the plaintiff relied on s 24AP(e) and contended that SPI was, by reason of breach of

statutory duty, the subject of 'several liability under another Act'. Thirdly, the plaintiff relied on s 24AI and contended SPI was under a non-delegable duty.

252 It is unnecessary to explore these matters in detail. Each of them raised a series of contested issues. Most notably perhaps the fact of agency was contested by SPI. Further, the statutory duty claim was itself contentious and this was not a case like *Burnie Ports Authority*[58] where UAM as contractor was actually conducting a dangerous activity. More fundamentally perhaps, the proper construction and application of ss 24AI and 24AP(e) in the circumstances of the present case are not free from doubt.

253 Nevertheless, these matters help illustrate the complexity and detail of contested issues with which the trial judge was ultimately confronted.

Claims against the State parties — planned burning by DSE

254 SPI prosecuted the case against the Secretary to the Department of Sustainability and Environment ('DSE'). It was alleged that DSE owed the claimants duties under common law and in consequence of s 62(2) of the *Forests Acts 1958* and s 17(2)(b) of the *National Parks Act 1975* to take reasonable care in effecting planned burning for the purposes of reducing fuel load upon public land.[59]

255 There was some factual dispute concerning the extent of planned burning undertaken by DSE but the central factual dispute was whether a far greater level of planned burning was required.

256 SPI alleged that, as a result of the failure to implement planned burning adequately in the Kilmore East bushfire area, the spread of the fire was greater than it otherwise

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58 *Burnie Ports Authority v General Jones Pty Ltd* (1994) 179 CLR 520.

59 Section 62(2) of the *Forests Act 1958* provides:

> (2) Despite anything to the contrary in any other Act or law, the Secretary must carry out proper and sufficient work in State forests, national parks and on protected public land—
>
> (a) for the immediate prevention and suppression of fire; and
>
> (b) for the planned prevention of fire.

Section 17(2)(b) of the *National Parks Act 1975* provides that the Secretary:

> (b) ensure that appropriate and sufficient measures are taken to protect each national park and State park from injury by fire;

would have been.

257 The case faced difficulties at the level of duty, breach and causation.

258 In final address, the case as to duty focussed on whether DSE owed the claimants a common law duty and I shall restrict my observations to that case. I note however that, on their face, the alleged duties under ss 62(2)(b) or 17(2)(b) were for the public good and not for the protection of an ascertainable class.[60] Furthermore, s 84(2) of the *Wrongs Act 1958* presented particular problems with respect to the case as to breach of statutory duty.

259 Section 83 of the *Wrongs Act 1958* provides:

> **83 Principles concerning resources, responsibilities etc. of public authorities**
>
> In determining whether a public authority has a duty of care or has breached a duty of care, a court is to consider the following principles (amongst other relevant things)—
>
> (a) the functions required to be exercised by the authority are limited by the financial and other resources that are reasonably available to the authority for the purpose of exercising those functions;
>
> (b) the functions required to be exercised by the authority are to be determined by reference to the broad range of its activities (and not merely by reference to the matter to which the proceeding relates);
>
> (c) the authority may rely on evidence of its compliance with the general procedures and applicable standards for the exercise of its functions as evidence of the proper exercise of its functions in the matter to which the proceeding relates.

260 Whilst it was plain that DSE had entered into the field of planned burning for the purposes of bushfire mitigation and control:

(a) DSE had limited control over the risk of harm;

(b) the fire was caused on private property by the operation of a privately owned

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60 *Cohen v State of Victoria* [2010] VSC 371, [53]-[56].

electricity distribution network;

(c) a duty will not ordinarily be imposed on a party which does not, by its positive conduct, create or contribute to the risk of harm;[61]

(d) the extent and content of the duty was ultimately difficult to define;[62]

(e) the duty would potentially apply across all public land in Victoria over which DSE had fire management responsibilities (7.7 million hectares);

(f) the duty was not to be defined with hindsight;

(g) the class to whom the alleged duty was owed was difficult to define;

(h) the statutory powers in issue were not granted for the purpose of protecting the claimants;

(i) the statutory powers involved the exercise of a discretion dependent on the making of policy decisions;

(j) there were significant legal and practical constraints which affected DSE's power to carry out planned burning; and

(k) any breach of the suggested duty would involve the Court in evaluating financial and policy considerations bearing on the allocation of public finances over a period of many years.[63]

261 To the extent that the case required the allocation of further resources, it had to overcome s 83(a) of the *Wrongs Act 1958*.

262 In *Graham Barclay Oysters Pty Ltd v Ryan*, Gummow and Hayne JJ stated as follows:

> 149 An evaluation of whether a relationship between a statutory authority and a class of persons imports a common law duty of care is

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61 *Agar v Hyde* (2000) 201 CLR 552, 578 [68] (Gaudron, McHugh, Gummow and Hayne JJ).

62 *Graham Barclay Oysters Pty Ltd v Ryan* (2002) 211 CLR 540, 563 [38] (Gleeson CJ), 610 [185] (Gummow and Hayne JJ).

63 *Sutherland Shire Council v Heyman* (1985) 157 CLR 424, 469 (Mason J).

necessarily a multi-faceted inquiry. Each of the salient features of the relationship must be considered. The focus of analysis is the relevant legislation and the positions occupied by the parties on the facts as found at trial. It ordinarily will be necessary to consider the degree and nature of control exercised by the authority over the risk of harm that eventuated; the degree of vulnerability of those who depend on the proper exercise by the authority of its powers; and the consistency or otherwise of the asserted duty of care with the terms, scope and purpose of the relevant statute. In particular categories of cases, some features will be of increased significance. For example, in cases of negligent misstatement, such as *Tepko Pty Ltd v Water Board*, reasonable reliance by the plaintiff on the defendant authority ordinarily will be a significant factor in ascertaining any relevant duty of care.

150 The factor of control is of fundamental importance in discerning a common law duty of care on the part of a public authority. It assumes particular significance in this appeal. This is because a form of control over the relevant risk of harm, which, as exemplified by *Agar v Hyde*, is remote, in a legal and practical sense, does not suffice to found a duty of care.

151 In *Brodie*, the council exercised physical control over the condition of the roads which it was empowered by statute to maintain and which themselves constituted the direct source of harm to road users. The council's measure of control over the safety of the person or property of citizens was 'significant and exclusive'. So, too, the fact of control over, and knowledge of, land or premises has been significant in identifying the duty of care owed to users of land or premises by a statutory authority which controls and manages that land or premises. Again, in *Pyrenees Shire Council v Day*, the Shire held a significant and special measure of control over the safety from fire of persons and property at the relevant premises. That degree of control was the touchstone of the Shire's duty to safeguard others from the risk of fire in circumstances where the Shire had entered upon the exercise of its statutory powers of fire prevention and it alone among the relevant parties knew of, and was responsible for, the continued existence of the risk of fire. It will be recalled that, in *Pyrenees*, the only other party with that knowledge was the former tenants. They had not communicated it to the subsequent tenants or adjoining occupiers, who were the relevant parties in this Court.

152 The Council in the present appeal, by contrast, exercised a much less significant degree of control over the risk of the harm that eventuated. At no stage did the Council exercise control, let alone significant or exclusive control, over the direct source of harm to consumers, that is, the oysters themselves. It may be that the predominantly land-based sources of pollution were all ultimately subject to Council control. That, however, is the start, not the end, of the inquiry. Control over some aspect of a relevant physical environment is unlikely to found a duty of care where the relevant harm results from the conduct of a third party beyond the defendant's control. *Modbury Triangle Shopping Centre Pty Ltd v Anzil* illustrates the point. What is significant here is

> the extent of control which the Council had over the risk of contaminated oysters causing harm to the ultimate consumer; control in that sense is not established by noting the Council's powers in respect of some or most of the sources of faecal pollution.[64]

263 The application of these principles in the present case was, on one view, fundamentally problematic.

264 Related problems confronted the allegations of breach.

265 There were a range of practical and operational constraints to planned burning, including such matters as windows of opportunity created by the weather and climatic conditions (which were characterised by an extended drought throughout the whole of the relevant period leading up to the fire), the need to take account of water catchment and logging operations, and the extent of financial and other resources available to DSE.

266 The complaint made was not with respect to planned burning that had in fact been conducted over the years prior to Black Saturday but simply that DSE had failed to do materially more.

267 There was, in turn, a real difficulty in defining what burning should, as a minimum, have been carried out in order to fulfil the duty alleged. This was the subject of extended contested evidence.

268 Further problems confronted the claim on causation. It depended upon assumptions which might not be accepted in the extreme conditions of the day. It may be doubted that the Court could safely reach a conclusion that the loss and damage occasioned by the spread of the bushfire was likely to have been materially reduced by the planned burning ultimately identified. Amongst other considerations:

(a) the fire spotted many kilometres ahead;

(b) DSE argued that in the conditions of Black Saturday, damp gullies which

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64 *Graham Barclay Oysters Pty Ltd v Ryan* (2002) 211 CLR 540, 597-99 [149]-[152] (Gummow and Hayne JJ) (citations omitted).

would not be the subject of planned burning would carry fire through otherwise treated areas and that, more generally, large fires have the ability to integrate fuel discontinuities;

(c) the greatest impact on the extent and spread of the fire occurred when it moved into Mountain Ash forest in the Mount Disappointment State Forest and Wallaby Creek Catchment and planned burning would have made no difference to this occurring; and

(d) even on the modelling upon which SPI relied, the fire would have affected each of the communities which SPI claimed might have been better protected by further planned burning.

269 It is unnecessary to explore these issues further for present purposes. It is sufficient to say that the planned burning case faced a real risk of failure.

Claims against the State parties — warnings

270 The plaintiff joined with SPI and UAM in prosecuting a case against the State parties alleging that, as a consequence of the failure of the State parties to provide proper and adequate warnings to the claimants, the I-D claimants suffered injury loss and damage.

271 The case was put as against members of the Victoria Police, the Country Fire Authority ('CFA') and DSE. It was put most strongly against the CFA and, for that reason, I shall focus upon this claim.

272 It was alleged that, from early in the afternoon of 7 February 2009 and certainly by the time the fire was burning uncontrollably in the Mount Disappointment State Forest, the CFA had sufficient knowledge to predict the path, spread and speed of the fire, and the communities it was likely to impact. It was then argued that, in the circumstances, the CFA had a duty to provide warnings and information as to :

(a) the source of the fire;

(b) the direction of the fire;

(c) the spread and the speed of the fire;

(d) the communities that might be or would likely be impacted by the fire;

(e) the approximate time that the fire might or would be likely to impact particular communities;

(f) the impact of any forecast wind change during the course of the fire;

(g) the unpredictability of the fire as to intensity, speed and spread; and

(h) the possible consequences of not heeding a warning.

273 The case was put by reference to the common law and a statutory duty alleged to arise pursuant to an emergency management manual made under the *Emergency Management Act 1986* and pursuant to s 20 of the *Country Fire Authority Act 1958*. By the time of final submissions, the focus of the argument was principally upon the existence of a common law duty or duties and I shall likewise address that case.

274 The case was further put specifically by reference to the circumstances of the plaintiff and her family and three sample group members (Sandra Lackas, Darren Gibson and Jenny Clarke).

275 Once again, the warnings claim was strenuously disputed by the State parties and there were substantial contests in relation to duty, breach and causation.

276 The warnings case fell to be considered against the background of the community education programs conducted by the CFA in the years leading up to Black Saturday and the extreme environmental and meteorological conditions in which the fire spread.

277 Ultimately, SPI argued that it was sufficient for the imposition of a duty that the CFA could 'control any integer or element of the causal chain linking a reasonably

foreseeable hazard to the relevant injury and resulting loss and damage'.

278 The role of warnings in the 'causal chain' was highly contentious.

279 Nevertheless, it was at least arguable that there was a reasonably foreseeable risk of injury or death to claimants if the CFA and/or DSE failed to provide adequate and timely warnings in the circumstances of the day.

280 The State parties pointed to a number of factors weighing against the existence of the duty alleged, including the following:

(a) the case was again one of alleged failure to act, not one of duty in respect of positive action;

(b) the relationship between the CFA and I-D claimants which the State parties argued emphasised personal responsibility and autonomy and discouraged the expectation of an official warning of bushfire threat;

(c) warnings of the kind contended for would have been contrary to the historical practice of the CFA and DSE;

(d) the CFA did not exercise control over the fire;

(e) the claimants had knowledge of the risk of bushfire on the day in any event;

(f) there is no legislative provision governing the power or responsibility of the CFA to give bushfire warnings;

(g) the CFA did not convey to the claimants that it had assumed responsibility for the giving of warnings to them;

(h) the CFA is not under a general duty to protect people from bushfire;

(i) vulnerability must be addressed separately for each individual claimant. The circumstances of the plaintiff and each of the sample group members did not demonstrate vulnerability on behalf of the class;

(j) section 83 of the *Wrongs Act 1958* requires that, in determining whether a public authority owes a duty of care, resource limitations must be recognised and the functions required to be exercised by the authority are to be determined by reference to the broad range of its activities.

281 I have already referred to authority which makes clear the existence of a duty in this kind of situation involving a multi-faceted inquiry.

282 It is sufficient for present purposes to say without further addressing the detailed arguments advanced on each side that the duty postulated was a novel one and the case in this respect was not without risk to both sides.

283 Insofar as breach is concerned, SPI in final submissions:

(a) summarised in detail the evidence given as to the progress of the fire and the CFA and DSE responses;

(b) set out the expert evidence of Professor Mileti, including analysis of fire information releases;

(c) produced a fire progression chronology;

(d) produced a map depicting fire progression; and

(e) summarised the fire information releases prepared and disseminated by CFA and DSE.

284 SPI argued that:

(a) the fire followed a relatively predictable path;

(b) by the time it crossed the Hume Freeway, it was clearly uncontrollable;

(c) CFA personnel had knowledge of these critical facts from early in the afternoon of 7 February 2009; and

(d) CFA (and DSE and Victoria Police) in the period prior to and on Black Saturday, assumed control of the provision of warnings and information as to bushfires and bushfire threats.

285 In this context, it was submitted that:

(a) CFA and DSE failed to provide any warning at all to any communities which they knew or ought to have known would be affected by the Kilmore East fire;

(b) CFA and DSE prepared and disseminated some fire information releases too late to be acted upon by people within the communities which they purported to warn; and

(c) the fire information releases which were given were inadequate to effectively communicate the risk which the fire posed.

286 The State parties argued that the case as to breach was misconceived:

(a) the fundamental approach of response to bushfire adopted by the Victorian community in the years prior to Black Saturday was to postulate the election between 'stay or go';

(b) it was fundamental to this policy that individuals made the election between 'stay or go' at an early stage. The impending threat of a bushfire was not an appropriate trigger for the election, because of the heightened risk of leaving late;

(c) there was nothing in the CFA and DSE pre-Black Saturday publications or community education programs which encouraged the community to rely upon late warnings from CFA or DSE. In fact, the State parties argued the explicit and consistent message was to the contrary;

(d) if individuals chose to 'wait and see', they were clearly acting contrary to the

instruction and planning contained in the *Living in the Bush* booklet and communicated during community education programs;

(e) the course of the fire was not on the day as predictable as SPI asserted;

(f) the actions undertaken by CFA personnel were undertaken in the face of an unprecedented catastrophe involving a number of major fires.

287 The State parties also relied on s 56(1) of the *Wrongs Act 1958*:

> (1) In any proceeding where, for the purpose of establishing that a person (the defendant) has breached a duty of care owed to a person who suffered harm (the plaintiff), the plaintiff alleges that the defendant has—
>
> (a) failed to give a warning about a risk of harm to the plaintiff; or
>
> (b) failed to give other information to the plaintiff—
>
> the plaintiff bears the burden of proving, on the balance of probabilities, that the plaintiff was not aware of the risk or information.

288 The State parties argued that in the period leading up to the fire the extreme risk of bushfire could not have escaped the claimants. This was particularly so given the explicit nature of warnings published in the media, including those given by the then Premier on 6 February. It was submitted that, given the notoriety of the risk and the initial information which must have become obvious throughout 7 February 2009, most claimants would not be able to discharge the onus under s 56(1).

289 Assuming breach was established, further difficulties confronted the claimants with respect to causation. Plainly enough, the case as to causation differed as between persons in different locations.

290 It would be necessary for individual claimants to demonstrate that further and other particular warnings would have affected their course of conduct in a way which altered outcomes. There would be claimants who suffered injury when attempting to leave and escape the bushfire who would have taken no other course if the further

warnings had been given. There would be other claimants who would fail to establish that further warnings would have caused them to act differently so as to avoid injury.

291 Ultimately, it is likely that even if duty and breach were established, a substantial proportion of the individual I-D claims would fail on the basis of causation. The evidence given by sample claimants demonstrated some of the difficulties which might potentially arise. It is unnecessary to analyse that evidence for present purposes but looked at in the broad it is probable that a large group of claimants faced causation difficulties.

Conclusion as to primary risk

292 Once it is understood that each of the claims made by the plaintiff faced some real risk of complete failure, it is difficult to conclude otherwise than that the proposed settlement is within the range of reasonable compromise. There is also a series of further consequential risks in respect of the plaintiff's claim which must next be addressed.

Consequential risks

293 Although the plaintiff's case as to risk as a consideration supporting approval of the settlement was put to me by way of submission which emphasised the drastic consequences to the plaintiff and group members inherent in the possibility of a nil outcome, there are some further permutations of risk which in the overall scheme of the litigation I regard as very significant.

294 First, success in the warnings cases could only be achieved to any substantial extent by the I-D claimants. Warnings would not have enabled the houses or properties destroyed by the fire to be removed from its path. Secondly, it was logically possible that a duty might be established and breach and causation established with respect to some only of the I-D claimants in respect of the warnings case. Thus it was possible that perhaps only half of the I-D claimants would succeed. Thirdly, success

in the warnings case alone would lead to very limited recovery of the plaintiff's costs. The case was substantially run in silos. The plaintiff would face the costs of the other issues and only some group members would recover the costs of the warnings issue following the completion of further stages of the trial.

295 Fourthly, success in the inspection case against UAM alone would carry with it the prospect of very limited recovery of the plaintiff's own costs if an issues based approach was taken, as well as a huge potential liability for the costs of the other parties.

296 Further, the confidential material lodged in support of the settlement approval application demonstrates that ultimate success against UAM alone would be attended by material risks as to recovery. This is not surprising given the huge scale of the claim and the costs both already incurred and potentially further associated with it. It is sufficient in this connection to say that I am satisfied that judgment against UAM alone would not result in the recovery by group members of compensation equivalent to that offered by the settlement.

297 Fifthly, although not as drastic in consequences, the further possibility that the plaintiff might recover against both UAM and one of the other defendants on a single alternative basis must also be recognised. In those circumstances, an apportionment of liability in respect of the property damage and economic loss claims might occur. The cumulative burden of costs to date and the potential burden of the costs of further proceedings would place UAM in a position in which a real risk would arise that it could not satisfy the judgment for the liability apportioned solely to it. This scenario again tends to confirm the complexity and pitfalls potentially inherent in the combination of risks as to liability confronting the plaintiff and group members.

298 Sixthly, if the plaintiff were to succeed solely on the basis of either the scheduled maintenance case against SPI (that being on the face of it the simplest case with respect to duty and breach), or the asset management case, she would face

potentially drastic consequences in respect of costs.

299 The cases on each of these issues might each have been respectively run in about one month. If issue based costs orders were ultimately made, the plaintiff might recover say 10 per cent of her costs and face liability for 90 per cent of SPI's costs and the whole of the costs of the other defendants. I estimate this incidental risk in aggregate to be a risk as to costs in the order of many tens of millions of dollars.

300 The claim against SPI with respect to scheduled maintenance and the claim against UAM for negligent inspection in 2008 were the simplest of the plaintiff's claims. Once it is appreciated that, even if the plaintiff succeeded in one or other of these claims, there were real prospects of a Pyrrhic victory in terms of net outcome, that consideration materially favours settlement.

301 Seventhly, the nuisance claim was necessarily limited to claims of damage to interests in land only, and again, if success were achieved in that claim only, compensation would be payable to only some of the group members.

302 Eighthly, there was a risk that if one or other of the claims succeeded it would not enable recovery for pure economic loss. Such claims were exemplified by that made by Mr Bennett, who gave evidence as a sample claimant that his business had suffered a significant loss of cellar door sales in consequence of fire damage to the immediately adjacent area as distinct from fire damage to his own property. As I have noted, there was significant doubt that the principles in *Perre v Apand*[65] would extend to bushfire claimants.[66] This risk also raised consequential risks with respect to costs.

Conclusions as to risk

303 It follows from the above analysis that the plaintiff faced some real risk that the claim would wholly fail and that she and the other group members would receive

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65 [1999] 198 CLR 180.

66 See also *Regent Holdings v State of Victoria* [2013] VSC 601.

nothing.

304 Alternatively, she faced a series of potential scenarios by way of outcome in a number of which the practical result was likely to be materially worse than 100 per cent recovery and, in some, materially worse than the proposed settlement.

305 In my view, these conclusions as to risk are themselves sufficient to justify the conclusion that the advantage of certainty of a positive outcome is sufficient to bring the settlement within the range of reasonable settlements as between the parties.

306 The risks fall to be measured against a settlement proposal which involves a figure which is itself a large and commercially significant sum. That sum will in turn result in a level of substantial compensation for group members. Taken together, these matters support the conclusion that the proposed settlement is reasonable as between the parties having regard to the claims of the group.

307 There are moreover a number of other factors reinforcing and supporting this conclusion.

Other advantages offered by the settlement

308 Assessment of the fairness of the proposed settlement as between the parties must also take into account a series of significant incidental advantages which the settlement conveys to the plaintiff and group members apart from the avoidance of the risks concerning liability which I have discussed above. The principal advantages are associated with considerations of finalisation; avoidance of continuing personal anxiety, stress and suffering; advancement of payment; and containment of costs.

Finalisation

309 The advantage of finality is a significant one in the present case for a number of reasons. First, the hearing of the proceeding has been staged and, even if stage 1 were concluded substantially in favour of the plaintiff, the group members faced the

necessity to complete further stages of the proceeding in order to obtain compensation. It is unlikely that these stages (including assessment of compensation) could be finalised through the courts in under five years having regard in particular to the extent of the individual claims requiring assessment.

310 Secondly, the assessment of potential further delay is complicated by the prospect of almost inevitable appeal, given the extent of novel and complex issues arising in the case. Indeed, there are issues of duty of care, breach and causation which might go beyond intermediate appeal and go to the High Court.

311 Thirdly, the further stages of the proceeding would potentially involve issues of significant difficulty, complexity and cost. It is possible that they would still require resolution of issues of duty and breach in respect of individual group members or classes of group members relating to the warnings case against the State.

312 They would necessarily require assessment of the serious injury threshold with respect to each of the personal injury claims. The assessment of those claims may be particularly difficult in cases of psychiatric injury or psychological overlay complicating cases of physical injury.

313 The further stages of the proceeding may also require the resolution of apportionment issues in respect of property damage. They may raise issues of contributory negligence at least with respect to a number (as yet uncertain) of the property damage claims.

314 They would necessarily require the resolution of issues of quantum ranging over property damage and pecuniary loss claims of almost every conceivable kind.

315 The principles governing the availability of compensation for pure economic loss and matters such as inconvenience are themselves controversial.

316 Moreover, the categories of damage in issue include classes of claims which have proved notoriously difficult to assess in similar litigation. These include damages

claimed by way of reinstatement cost for items not in fact yet reinstated and damages for loss of trees and gardens, which present particular difficulties by reference to their relative value in different locations and issues such as the life expectancy of the trees and plants.

317 Many of these claims are not of the kind commonly litigated on a no-win no-fee basis and raise difficult issues about the ongoing funding of expert evidence and other incidental costs.

318 They also raise questions about the extent of funding of individual claims of difficulty in the context of arrangements for the funding of group costs as a whole.

319 They may also raise difficult issues as between insurers and insured.

320 Looked at in the broad, the claims for property damage and pecuniary loss are thus likely to be inherently difficult to resolve expeditiously and effectively by way of conventional court proceedings. Whilst on the other hand, an inquisitorial assessment process directed to classes of claims as is proposed by the SDS, (many of which share common characteristics) and which are funded from a group fund, may readily be expected to be significantly more expeditious.

Personal stress, anxiety and suffering

321 The experience of the fire and its consequences has been horrific for many group members. Moreover, the overwhelming probability is that the I-D claimants include persons who have suffered psychiatric injury or a significant psychological overlay in consequence of burn injuries.

322 The settlement will materially reduce the stress and anxiety otherwise inherent in the continuation of the proceedings and the need to establish the extent of individual claims in an adversarial context.

323 The experiences of many group members who have not suffered psychiatric sequelae have also been horrific.

324 The accounts given by individual group members in evidence during stage 1 of the trial, to which I have referred above, demonstrate the types of traumatic experiences to which I am referring.

325 As a result of the fire, Mrs Matthews lost her 21 year old son, Sam, who perished when the fire struck the family home at St Andrews with enormous ferocity.

326 Mrs Lackas lost her husband, Stephen, when their property at Upper Plenty was struck by the fire front.

327 Mr Gibson lost his partner and three children when the fire struck his property south-west of Kinglake West. He also suffered horrendous burns, particularly to his feet and legs.

328 When Mrs Clarke's house at Kinglake was destroyed, she lost her son Danny, two of her grandchildren and two neighbours. She herself suffered severe burns.

329 There is a substantial benefit conveyed by way of the settlement overall to the group in minimising the further personal stress, anxiety and trauma which would be inherent in continued litigation of individual personal injury claims.

Advancement of payment

330 It is estimated that the settlement of the proceeds should result in payouts to group members being made within the next 18 months.

331 The present value of compensation when compared with other possibilities of greater compensation some uncertain time in the future must at least in respect of the property damage and economic loss claims, be seen as a very material advantage justifying a discount on the settlement.

Containment of costs

332 The costs incurred in this case by all parties to date are already very high. The costs of the further stages of the proceeding and of likely appeals if the matter does not

resolve are likely to involve many millions of dollars.

333 The inquisitorial assessment of damages proposed under the SDS will materially contain the expenses which otherwise confront group members in seeking to obtain compensation for their losses.

Counsel's opinion

334 The above matters all support the conclusion that the settlement as between the parties is a reasonable and sensible one.

335 That conclusion is fortified by a very detailed and comprehensive memorandum of advice from trial counsel supporting this view and the independent advice of eminent interstate counsel as to the principal risks confronting the plaintiff.

336 Trial counsel have had the advantage of seeing the witnesses and going through the development of the case in the course of a long trial. They have also had the opportunity of gauging the reaction of the trial judge during the course of final addresses. All of these matters make their assessment of the issues in the case and their assessment of the reasonableness of the settlement particularly helpful.

337 My conclusion as to the reasonableness of the settlement as between the parties is also fortified by the almost total lack of substantive objection from group members as a whole in circumstances where the proceedings have been web streamed to them and they have had a substantial period in which to reflect on the notice of the proposed settlement and to take independent legal advice with respect to it.

338 The group members include a significant group of insurers exercising rights of subrogation. The fact that none of the insurers have objected when they are in effect a body of professional litigants used to assessing the reasonableness of the settlement of claims is particularly significant.

339 Lastly, the fact that the settlement is the product of a considered and protracted mediation and negotiation process also supports the view that it is within the

appropriate range.

The settlement as between group members

340 It is necessary for the Court to be satisfied not only that the settlement is reasonable as between the parties but also as between the group members themselves. In particular, it is necessary for the Court to be satisfied that it is reasonable in the interests of all the members of the group and not simply in the interests of the plaintiff. This requires a considered assessment of the effect of both relevant parts of the settlement deed and the SDS.

The deed of settlement

341 There are three aspects of the deed of settlement to be noted in this regard:

(a) The payments proposed are compartmentalised. The payments by the State parties are required to be applied to compensation for I-D claims only.

(b) Clause 7(d) contemplates the formulation of the SDS on the following basis:

> (d) As soon as practicable after execution of this deed, Maurice Blackburn shall prepare the Settlement Distribution Scheme, which scheme shall, subject to any orders of the Court, provide to the effect that:
>
> (1) the Distribution Sum be administered by a principal of Maurice Blackburn as a Court appointed fund administrator, who shall not act as the solicitor for Matthews or any Group Member in doing so; and
>
> (2) 3/8^{ths} of the Distribution Sum shall be allocated to the payment of I-D Claims, up to the I-D Claims Cap.

(c) The deed defines the plaintiff's costs and disbursements as follows:

Matthews' Costs and Disbursements	the sum of sixty million dollars ($60,000,000.00) on account of Matthews' legal costs and disbursements of and incidental to the investigation or prosecution of the claims the subject of the Proceeding, calculated in accordance with Matthews' retainer of Maurice Blackburn, plus interest accruing on any part

of the said amount in accordance with the Settlement Distribution Scheme.

Clause 7(f) further provided:

(f) The Parties agree that the Approval Orders will also provide to the following effect:

(1) pursuant to section 33ZF of the Act or otherwise, the Court authorises Matthews *nunc pro tunc* on behalf of the Group Members respectively to enter into and give effect to this deed of settlement and the transactions contemplated by this deed, for and on behalf of the Group Members and each of them;

(2) save as the Court may otherwise order in accordance with the Approval Orders, Matthews' Costs and Disbursements, so far as they are verified as reasonable by an affidavit or affidavits sworn by an independent costs assessor, be approved for the purposes of payment in accordance with this deed and the Scheme, and the said costs and disbursements be payable in accordance with this deed and the Scheme;

(3) the costs and disbursements associated with the implementation of the Settlement Distribution Scheme be payable in accordance with the Settlement Distribution Scheme;

(4) all *inter partes* costs orders be vacated;

(5) upon completion of distributions pursuant to the Settlement Distribution Scheme— the Proceeding, including any counterclaim and contribution notices, be dismissed with no order as to costs.

The SDS

342 The SDS contains an overview which summarises its contents.

A. This Settlement Distribution Scheme establishes a procedure for distributing the sums to be paid by the Defendants to the Kilmore Bushfire Class Action pursuant to a settlement of the class action approved by the Supreme Court of Victoria.

B. This Settlement Distribution Scheme will not become operative unless and until the Court has granted approval for the settlement of the class action upon the terms set out in the Settlement Deed and in this Scheme.

C. This Settlement Distribution Scheme provides for the following major

elements:

(i) the procedure for assessing the individual claims of group members will be administered by a senior partner (principal) of Maurice Blackburn, appointed as Scheme Administrator and not as the solicitor for any particular client;

(ii) the assessment procedure will vary depending on whether the particular claim relates to personal injury and dependency (I-D Claims), or economic loss and property damage (ELPD Claims);

(iii) that is, the total sum paid by the Defendants (after deduction of the plaintiff's costs incurred in prosecution of the claims the subject of the Proceeding) will be split:

  (a) three-eighths for an I-D Claims Fund, for payment of I-D Claims; and

  (b) five-eighths for an ELPD Claims Fund, for payment of ELPD Claims;

(iv) for Personal Injury & Dependency Claims ('I-D Claims'):

  (a) the claim information will be delivered to a barrister specialising in the personal injury jurisdiction, who will then confer with the Claimant (and may refer the Claimant to a medico-legal assessment by a medical practitioner) and deliver an initial assessment valuing the Claimant's I-D Claims;

  (b) any Claimant dissatisfied with the initial assessment will have an opportunity to seek a review of that assessment, either by a medical practitioner or by Senior Counsel specialising in the personal injury jurisdiction, depending on the nature of the review sought;

  (c) the initial assessment, as modified by any review assessment, will determine a claim value, and each I-D Claimant will share in the I-D Claims Fund in the proportion which his or her claim bears to the total value of all claims against that Fund;

  (d) the rate at which I-D Claims made against the I-D Claims Fund will be compensated will be capped at 80% of the value of each claim;

  (e) any balance then remaining in the I-D Claims Fund will be transferred into the ELPD Claims Fund, to reduce the difference in compensation rates which will nevertheless exist as between I-D and ELPD Claims;

(v) for Economic Loss & Property Damage ('ELPD') Claims:

(a) each Claimant's information will be collated either by the Scheme Administrator's staff or by the loss valuers appointed by the Scheme Administrator to value each Claimant's ELPD Claims;

(b) the valuers will give a written report as to their assessment of each ELPD Claim;

(c) any Claimant dissatisfied with the initial assessment will have an opportunity to seek a review of that assessment, to be conducted by a barrister acting together with a Senior Loss Valuer;

(d) all ELPD assessments will be done in accordance with certain 'Assessment Principles' set out in this Scheme;

(e) the components of the initial assessment, as modified by any review assessment, will be subject to certain 'ELPD multipliers' the purposes of which are to prioritise certain losses over others, and to reflect uncertainties in aspects of the law relating to loss valuation;

(f) the adjusted assessments will form the basis on which ELPD Claimants will share pro rata in the ELPD Claims Fund;

(vi) special provisions are made in respect of Claimants who are minors, or persons under a disability within the meaning of Order 15 of the Rules of Court, and therefore subject to the supervisory jurisdiction of the Senior Master's Office;

(vii) costs incurred by the Scheme Administrator in connection with the assessment of group members' claims will not be charged to individual group members, but instead paid out of the overall compensation fund;

(viii) group members who seek specific legal advice, or require other work beyond the routine information-gathering tasks undertaken by the administrator staff, will be entitled to retain other solicitors, or other personnel of Maurice Blackburn, as they wish but at their individual cost; and

(ix) the Court is to have ongoing supervision over the implementation of this Scheme.

343 There has been no objection to any specific aspect of this scheme.

344 I have considered it and accept that it is appropriate.

345 There are nevertheless some aspects of the scheme which require specific analysis

and explanation:

(a) the proposed payment of solicitors' costs;

(b) the split between I-D and ELPD claimants;

(c) the distribution of compensation as between insured and insurers;

(d) the provision for payment of costs of administration of the scheme;

(e) some procedural provisions;

(f) some aspects of the assessment principles adopted with respect to particular classes of loss and damage;

(g) the provision for additional compensation to those sample members of the group who participated directly in the stage 1 hearing.

Each will be considered in turn.

Costs of the proceeding

346 Both the deed and the SDS contemplate that the plaintiff's costs and disbursements of, and incidental to, the investigation and prosecution of the claims in this proceeding will be paid to Maurice Blackburn in the sum of $60 million from the settlement sum.

347 The settlement deed requires these costs and disbursements to be approved by the Court and it is in any event necessary to consider whether this payment affects the reasonableness of the settlement as between the plaintiff and other members of the group.

348 The Court's role is to satisfy itself that the plaintiff's costs, which will be deducted from the recovered sum, are reasonable in all the circumstances. In *Modtech Engineering Pty Ltd v GPT Management Holdings Ltd*[67], Gordon J considered the

[67] [2013] FCA 626 ('*Modtech*').

rationale for the Court's supervision of the plaintiff's solicitor-client costs in a group proceeding, and in doing so referred to Tadgell J's observations made in the context of a taxation of costs in *Redfern v Mineral Engineers Pty Ltd*:

> The court's surveillance over costs as between solicitor and client is assumed with a view to preventing any unfair advantage by solicitors in their charges to their clients. It stems, it seems, from the notion that ordinarily a solicitor is presumed to be in a position of dominance in relation to his client as a result of his presumed knowledge of the law and of what may and may not be properly charged by way of fees. Were a strict view not taken it might be open to a solicitor to overreach his client or otherwise act oppressively towards him on the matter of costs.[68]

349 While the process of the approval of the costs of a representative proceeding is not a taxation, Tadgell J's observations are apposite. As Gordon J recognised in *Modtech*,[69] the group members who are to share the liability for the fees and disbursements are limited in their capacity to act as contradictors to the claim for costs because the information available to them is limited.[70] While the opt out notices distributed to the group members in 2011 specifically notified them of the likelihood of a requirement to apply some portion of any eventual recovered sum toward reimbursing the plaintiff for any costs not recovered from the defendants, and the published notice of settlement informed the group that $60 million was sought to be recovered from the settlement sum, the group members have no way of assessing this figure in detail. They do not know how the sum was quantified and have not had access to the confidential affidavits of the costs consultants retained by Maurice Blackburn in support of this application. The process of analysis undertaken in the evidence before the Court is therefore integral to ensuring the costs sought are fair and reasonable.

350 In *Courtney v Medtel Pty Limited (No 5)*[71], Sackville J considered that, in a case such as the present, evidence should be presented from an independent solicitor or costs consultant as to:

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68 [1987] VR 518, 523.
69 [2013] FCA 626.
70 Ibid [27].
71 [2004] FCA 1406.

(a) the reasonableness of the terms of the fee and retainer agreements (including the provisions for ancillary services, interest and an uplift factor);

(b) whether the fees and disbursements actually charged by the solicitors have been calculated in accordance with the fee and retainer agreement; and

(c) confirming that, so far as the solicitor or costs consultant can determine, no significant portion of the fees and disbursements charged by the solicitors have been inappropriately or unnecessarily incurred in conducting the proceedings on behalf of the plaintiff and the represented group.[72]

351 Sackville J did not require an exhaustive review of the solicitor's files, but an overview providing the information outlined above.

352 In *Modtech*,[73] Gordon J considered that the requirement that sufficient information be provided to the Court by the solicitors seeking approval of their professional fees should not be unduly onerous.[74] The information useful to the Court in assessing the reasonableness of the fees and disbursements claimed involved a review and consideration of:

(a) whether the work in a particular area, or in relation to a particular issue, was undertaken efficiently and appropriately;

(b) whether the work was undertaken by a person of appropriate level of seniority;

(c) whether the charge out rate was appropriate having regard to the level of seniority of that practitioner and the nature of the work undertaken;

(d) whether the task (and associated charge) was appropriate, having regard to the nature of the work and the time taken to complete the task; and

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72 Ibid [61].
73 [2013] FCA 626.
74 Ibid [37].

(e) whether the ratio of work and interrelation of work undertaken by the solicitors and the counsel retained was reasonable.[75]

353 Gordon J initially declined to accept the plaintiff's costs evidence because the affidavit of the costs consultant was found to be lacking in detail and proper analysis.[76] A registrar of the Court was appointed to make an assessment of the costs, and a further expert opinion was sought. Gordon J accepted the methodology of the second expert, and in *Modtech Engineering Pty Ltd v GPT Management Holdings Ltd (No 3)* commented on the process undertaken by her:[77]

> What then was that methodology? The task was not a taxation and no itemised bill of costs was prepared. Instead, Ms Harris considered her task by reference to the following principles:
>
> 1. There was a need for an appropriate balance in relation to the level of information available to the court and the costs associated with the provision of that information: *Re Medforce Healthcare Services Ltd (in liq)*;[78]
>
> 2. The principles applicable to the assessment of costs on a gross sum basis provided some guidance. When assessing costs in that way the methodology adopted and information provided must enable the Court to be confident that the approach taken is logical, fair and reasonable: *Beach Petroleum NL v Johnson (No 2)*;[79] *Seven Network Ltd v News Ltd*;[80] and *Leary v Leary*;[81]
>
> 3. At a minimum, a statement of the work undertaken together with a sufficiently itemised account to enable the charges made to be related to the work done was required: *Re Medforce*;
>
> 4. The matters to be taken into account in a review of legal costs under s 3.4.44(1) of the *Legal Profession Act 2004* (Vic) (the LPA), which include whether or not it was reasonable to carry out the work to which the legal costs relate, whether or not the work was carried out in a reasonable manner and the fairness and reasonableness of the amount of legal costs in relation to that work, as well as the matters that may be taken into account in considering what costs are fair and reasonable under s 3.4.44(2) of the LPA;

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75 Ibid.
76 Ibid [50]-[52].
77 *Modtech Engineering Pty Ltd v GPT Management Holdings Ltd (No 3)* [2014] FCA 680, [25] (citations in original).
78 [2001] 3 NZLR 145.
79 (1995) 57 FCR 119, 123.
80 [2007] FCA 2059, [35], [88].
81 [1987] 1 WLR 72.

5. The considerations enunciated in *Modtech Engineering Pty Ltd v GPT Management Holdings Ltd*[82] and *Modtech Engineering Pty Ltd v GPT Management Holdings (No 2)*.[83]

354 In *Re Medforce Healthcare Services Ltd (in liq)*[84] the Court considered that the principles adopted in fixing a liquidator's remuneration were similar to those relevant to approving solicitor and client costs. In each case what is required is enough information to enable an assessment to be made as to whether the total costs charged are reasonable.

> As a minimum it seems to us that what is required is a statement of the work undertaken during the course of the liquidation, together with an expenditure account sufficiently itemised to enable the charges made to be related to the work done. The detail would have to be sufficient to enable the judicial officer to determine whether the personnel involved in the liquidation and their respective charge-out rates were appropriate to the nature of the work undertaken. This information may in some cases raise concerns as to whether there has been overservicing and overcharging. If there are suggestions of this in the information provided, the Court can request further information. [85]

355 Two considerations raised in this case were reiterated by Gordon J in *Modtech*.[86] First, that it is the judicial officer, and not the independent costs expert, that is required to determine whether the fees and disbursements are reasonable, and secondly, that the information provided to that judicial officer must be sufficient to enable them to undertake that assessment.[87]

356 In this case, the Court has been provided with the confidential reports of two independent costs consultants, Ms Dealehr and Mr Mazzeo who were retained by Maurice Blackburn to provide opinions as to whether the legal costs and disbursements calculated in accordance with the retainer between the plaintiff and Maurice Blackburn were fair and reasonable. In their assessments, Ms Dealehr and Mr Mazzeo concluded that the reasonable legal costs and disbursements for the

82 [2013] FCA 626.
83 [2013] FCA 1163.
84 [2001] 3 NZLR 145.
85 Ibid [34].
86 *Modtech* [2013] FCA 626, [35].
87 Ibid.

proceeding were comfortably in excess of the $60 million proposed in the settlement agreement between the parties.

Costs agreements

357 The plaintiff signed two conditional costs agreements. The first was entered into by the plaintiff on 27 May 2010 for the provision of legal services by Maurice Blackburn and Slidders Lawyers. A further conditional costs agreement was then entered into by the plaintiff with Maurice Blackburn alone on 17 March 2011, the contents of which was similar but not identical to the first.

358 Both agreements provided for professional fees to be applied at the Supreme Court of Victoria costs scale plus a loading for the complexity and scale of the proceeding (the 'complexity loading'). The agreements also stipulated that the plaintiff would only be charged professional fees and disbursements in the event of a successful outcome, which was defined to include an award of money, verdict or declaration in favour of the plaintiff as the representative party. An uplift fee of 25 per cent, as permitted under s 3.4.28 of the *Legal Profession Act 2004,* was also agreed to in the event of a successful outcome.

359 A review of the solicitors' costs agreements undertaken by Ms Dealehr and Mr Mazzeo confirmed that the hourly rates charged by Maurice Blackburn were appropriate, and that the agreements were fair and reasonable. The application of professional fees at the Supreme Court scale with a complexity loading was considered to be proper having regard to the nature, importance and complexity of the proceeding.

360 The 25 per cent uplift of professional fees was also considered fair by both costs consultants. Mr Mazzeo noted that the proceeding has been conducted for five years on the basis that Maurice Blackburn's professional fees were deferred and only payable upon the successful completion of the proceeding, justifying the application of the uplift.

361 Both Ms Dealehr and Mr Mazzeo had particular regard to the scale and complexity of the proceeding overall and its component parts. They considered the full sequence of the tasks undertaken by the solicitors.

Methodology of Ms Dealehr

362 Ms Dealehr conducted the analysis of the work undertaken by Maurice Blackburn by reviewing entries in the automated time and billing system, Elite, in which lawyers and non-lawyers recorded the time they worked on particular aspects of the proceeding. The entries from Elite related to work completed between 13 March 2009 and 30 June 2014. The steps taken by Ms Dealehr in determining the reasonableness of the professional fees incurred under retainer were to:

(a) calculate the time spent on the proceeding by each of the lawyers and non-lawyers;

(b) apply the Supreme Court scale rates and charges to work done by lawyers and non-lawyers;

(c) identify and excise the number of hours relating to non-recoverable matters by reference to costs that are not claimable under the Supreme Court scales;

(d) apply any discounts after considering the nature of the work claimed or the manner in which the work was done;

(e) apply the factor for loading for skill, care and attention as claimable under each of the old or new Supreme Court scales;

(f) apply the complexity loading factor as provided for under the Maurice Blackburn conditional costs agreements; and

(g) apply the factor of the 25 per cent uplift fee to professional fees on obtaining a successful outcome as claimable under the *Legal Profession Act 2004* and provided for under the Maurice Blackburn conditional costs agreements.

363 In undertaking these steps, Ms Dealehr broadly reflected the methodology approved by Gordon J in *Modtech*.[88]

Professional fees

364 Ms Dealehr identified the scope of work in each phase of the proceeding and reviewed time records to determine whether any work was undertaken outside that scope. There were 60 identified categories of work performed by Maurice Blackburn, three of which were found to be non-recoverable. A discount of 100 per cent was applied to these three categories of work, which included administrative work, costs which were for the benefit of Maurice Blackburn (for example, costs incurred in the drafting of the conditional costs agreement) and any entries in Elite which were classed as 'undefined' because they lacked sufficient information to determine the task completed.

365 A review of the time records was undertaken and cross-checked to identify instances of unnecessary duplication, or attendances at conferences and hearings where the number of lawyers attending was unreasonable. Samples of Elite entries were taken from the top 10 categories of work, being those categories where the highest percentage of work was done, to determine whether a discount may be appropriate. In the instance of lawyers attending Court, Ms Dealehr concluded that considering the ambit of the case and the number of issues involved, the amount of time spent in Court was reasonable and no adjustment was made. Unnecessary duplication of work was not found. Taking into account the difficulties experienced in translating the general record of 'bulk' time of lawyers into a form acceptable for taxation, a percentage reduction was applied to blocked time entries.

366 In considering the work completed in the categories overall, Ms Dealehr determined that the balance of time spent across all major categories of work was reasonable and proportionate.

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88 [2013] FCA 626.

Disbursements

367 The majority of disbursements incurred by Maurice Blackburn on behalf of the plaintiff related to counsels' fees. A summary of the nature of each counsel's involvement and their average hourly rate was prepared. The work claimed by each individual counsel was sorted and summarised to identify the percentage of time spent on tasks by counsel, taking into account their level of experience. A small reduction on preparation and reading was found to be warranted in relation to the fees of the core team of barristers, reflecting the difficulty in proving these fees at taxation rather than the recoverability of them. When considering the work done and the breakdown of the work, Ms Dealehr otherwise considered the fees of counsel to be reasonable.

368 The hourly rates charged by counsel were also found to be reasonable and were not adjusted, aside from the hourly rates charged by three senior counsel, which were adjusted to reflect hourly rates likely to be recovered on a reasonable basis at taxation.

369 Disbursements relating to experts' fees were also considered. Maurice Blackburn engaged 26 experts to provide advice, reports, attend conclaves and give evidence in the proceeding. Ms Dealehr examined each of the experts' fees and their written retainers. Invoices, which provided breakdowns as to time spent by each expert, were examined to confirm that they were relevant to the proceeding. The hourly rates charged by each expert, along with the overall fees claimed by them were found to be of a reasonable amount.

370 Disbursements also included:

(a) the costs of Court appointed and sundry experts;

(b) the costs of loss assessors and valuers;

(c) the costs of subpoena and lay witnesses;

(d) Court related expenses;

(e) document and Court management expenses. These services were provided by Nu Legal Pty Ltd and Law In Order in relation to external photocopying, electronic discovery and e-trial costs;

(f) expenses relating to the reports from medico-legal experts and treating doctors. This category also included the freedom of information fees for medical records and the related photocopying expenses;

(g) travel expenses and site visits;

(h) media expenses relating to the advertisement of the class action and publication of opt out notices;

(i) other minor fees relating to couriers, telephone calls and taxis;

all of which were found to be reasonably incurred and of a reasonable amount. The only discount applied to a fee relevant to site visits, in which there was a claim for the establishment of a Kinglake office for a short period in the initial stages of the retainer. This fee was disallowed as it was considered an overhead of a law firm rather than a disbursement.

371 Pursuant to the settlement deed, Ms Dealehr sought disclosure of the total legal costs incurred by the defendants. Obtaining these details from SPI and the State parties did not change her opinion of the reasonableness of the legal fees charged by Maurice Blackburn. Mr Mazzeo made a similar enquiry, receiving responses from UAM, the State parties and SPI, and stated that he found the material of very limited relevance to the task he was required to undertake. The information has also been provided to this Court.

Methodology of Mr Mazzeo

372 Mr Mazzeo's methodology involved reference to the hard copy file along with Elite

entries. He examined:

(a) 76 lever arch folders of correspondence;

(b) 8 lever arch folders of copy disbursement accounts and fee slips;

(c) an Excel spread sheet containing an Elite database of disbursements;

(d) 9 volumes of time record details relating to professional fees;

(e) a CD containing folders of discovery lists received from the first and second defendants, a chronology of pre-trial Court appearances and appearances before judges other than J Forrest J which took place during the trial and a schedule of documents discovered by the defendants or produced pursuant to subpoena;

(f) a CD containing copies of invoices to defendants, insurer invoices and insurer agreements and a spreadsheet of individual disbursements;

(g) a CD containing copies of expert reports, expert retainer agreements, Amex statements and barristers' clerk statements;

(h) the Red Crest Court document library index;

(i) electronic material contained on Maurice Blackburn's Filesite document management system, including opening submissions, pleadings and closing submissions; and

(j) Court rulings and judgments delivered in the course of the proceeding.

373 After completing the review of the listed material, Mr Mazzeo undertook a line by line review of Maurice Blackburn's time records for the period from March 2009 to June 2014, as the lawyers had maintained detailed time records of the work done by the solicitors and staff. The time records comprised 9 volumes, 2,589 pages and 51,223 individual items. In reviewing these items, they were grouped into scale

items, instructions for brief items (for costs up to 31 March 2013, after which the Supreme Court scale was enacted) and items not chargeable.

374 Mr Mazzeo used the scale hourly rates for solicitors and clerks in conjunction with a review of the material and a line by line assessment of the time entries to produce his assessment of the costs. He attests that this methodology produces an accurate assessment of the reasonable costs calculated in accordance with the Supreme Court scale.

375 Of the 51,223 entries made, Maurice Blackburn themselves marked 354 items for removal from the bill, and after his review, Mr Mazzeo removed a further 1,307 items. In addition to removing items which he considered not chargeable, a further five per cent discount was applied (prior to uplift and GST) to reflect the difficulty inherent in the analysis of some entries which are necessarily in summary form, where there is potential for the mischaracterisation of the task completed.

Disbursements

376 Mr Mazzeo undertook a manual audit of disbursement accounts and invoices. Spreadsheets were created listing the fees charged by counsel, experts, the Court (which were expenses for Court transcript and technology) and other general disbursements. Having regard to the size, complexity and difficulty of the proceeding, Mr Mazzeo considered the rates charged by counsel and the experts to be fair, reasonable and appropriate. The Court expenses were also judged to be properly incurred. In relation to the general disbursements, some costs were disallowed including:

(a) internal photocopying;

(b) various minor expenses such as catering, telephone expenses and some equipment purchases which Mr Mazzeo considered to be properly characterised as overheads; and

(c) disbursements that were reimbursed or paid by the defendants in the course of the proceeding.

377 In Mr Mazzeo's opinion, there were no significant professional costs or disbursements incurred unnecessarily or inappropriately.

378 It may be noted that there were concessions made by Maurice Blackburn in the way the $60 million figure was arrived at. First, despite both costs consultants considering figures in excess of $60 million to be fair and reasonable, Maurice Blackburn does not seek to recover those higher amounts. Secondly, Maurice Blackburn was entitled to charge interest on outstanding professional costs under the relevant fee agreement but chose not to do so, resulting in $7,502,291 being foregone in respect of the $60 million.

Are the costs sought by Maurice Blackburn fair and reasonable?

379 The opinions of independent costs consultants are central to an application of this sort, and as the decision of *Modtech*[89] indicates, the methodology used by the consultants must be of particular interest to the Court.

380 Both the independent costs consultants have approved of the rates at which professional fees and disbursements were charged. Where any rates were regarded as inappropriate, or where there was work considered duplicative or unnecessary, deductions were made by the consultants. Despite this, both costs consultants calculated an amount that could be charged for the legal costs that was substantially in excess of the amount which Maurice Blackburn proposes to charge. The seniority and experience of both costs consultants engenders confidence in their assessments.

381 Moreover, the approach taken by Ms Dealehr reflects the methodological principles approved by Gordon J in *Modtech*[90] and is very comprehensive. The detail with which the breakdown of costs is presented provides the Court with the information

89 [2013] FCA 626.
90 Ibid.

required for the Court to undertake an independent assessment of the overall reasonableness of the costs.

382 Where there is a conditional costs agreement in place, it is proper and usual practice pursuant to the *Legal Profession Act 2004* to allow a 25 per cent uplift on the fees payable. This uplift component of the overall costs is regularly approved in representative and other proceedings, and I see no reason not to consider it appropriate in this case. This is particularly the case because the proceeding was not subject to litigation funding. Had the proceeding been funded by a commercial litigation funder, the group members would have been liable to pay a funding premium in the order of at least 30 per cent of the settlement proceeds, being $148,400,000, or possibly significantly more. The entirety of the core financial risk of this proceeding was borne by Maurice Blackburn.

383 The plaintiff was kept informed as the trial progressed as to the estimated total legal costs of the proceeding. These estimates were inclusive of the uplift fee on professional fees and disbursements. The final total estimate provided to the plaintiff in writing was set out in a range, and the $60 million figure is within the range that was provided. Updated estimates were also provided to group members who had retained Maurice Blackburn as to the likely range of costs they might be asked to bear in the event of a settlement or judgment.

384 After the proposed settlement was arrived at, a notice of the settlement informed the group members of the overall amount of costs and disbursements Maurice Blackburn sought to recover from the settlement sum. The notice of settlement referred group members to an information sheet published on the websites of this Court and Maurice Blackburn, and contained the following information in relation to fees:

> Maurice Blackburn will only get whatever fees are assessed by independent costs assessors as reasonable and approved by the Court.
>
> Maurice Blackburn's present estimate is that its fees will constitute about 7% of the overall settlement sum (approximately $37,000,000) whilst expenses on

> barristers, experts and other disbursements will constitute about another 5% (approximately $23,000,000). These figures must be checked by independent costs assessors and approved by the Court. The figures quoted before for estimates of returns to group members were calculated after deducting our estimate of Maurice Blackburn's costs and expenses.

385 Notably since the notice of settlement was published, there has been no objection filed in respect of the proposed payment for costs and disbursements. Whilst, as I have said, the group members are not in possession of the detailed information that would allow them to assess in detail the costs sought, they are aware of the unprecedented scale of the proceeding and settlement sum, and the silence that has followed the notice of settlement is a significant factor. This is particularly so when one considers that a number of the group members have subrogated rights to insurers, who are sophisticated litigants, with experience of the reasonable costs of large scale litigation.

386 For these reasons, I consider that the total settlement figure for costs and disbursements of $60 million is an amount which is fair and reasonable.

The split between classes of claimants

387 The settlement sum is to be split 3/8^{ths} for an I-D claims fund and 5/8^{ths} for an ELPD fund.

388 As I have said the rate of compensation to the two different classes of claimants is expected to vary. It is expected I-D claimants will receive approximately 66 per cent of their total losses and ELPD claimants approximately 33 per cent.

389 The requirement of the State parties that their contribution to the settlement be hypothecated to I-D claims (after deduction of costs) is not without a logical justification which it is reasonable for the group as a whole to accept.

390 More particularly, there are rational grounds for regarding the warnings case as the strongest of the claims brought against the State parties and that case was effectively open only to I-D claimants.

391 If the contribution of the State parties is put aside, the proposed distribution as between I-D and ELPD claims is pro-rata for the balance of the settlement sum (with some rounding).

392 Further, the ELPD claimants have received significant insurance and gratuitous payments. Although these supplementary contributions will have benefitted individual claimants differently to some degree, when they are taken into account the levels of compensation which the ELPD claimants will as a whole receive are broadly comparable to those which the I-D claimants will receive.

393 In addition, the compensation payable to the I-D claimants will be capped at 80 per cent of the damages assessed and if this generates an excess of funds those funds will be rolled over to the ELPD claims fund.

394 Lastly, the commercial advantages of finality and advanced payment resulting from settlement of the ELPD claims are readily calculable and the absence of objection to the settlement split as such confirms that it is commercially sensible.

Priority as between insured and insurer

395 The proposed settlement distribution scheme distributes the ELPD claims fund pro-rata as between the amounts assessed for above insurance claims and insurance recovery claims. The scheme adopts this approach because the plaintiff's legal advisers have taken the view that there is considerable legal uncertainty in the circumstances of this proceeding regarding the appropriate order of priority as between insurer and insured in the distribution of the settlement sum.

396 Section 67 of the *Insurance Contracts Act 1984* (Cth) as it was at the relevant date provided:

> **Rights with respect to moneys recovered under subrogation**
>
> 67.(1) Where an insurer, in exercising a right of subrogation in respect of a loss, recovers an amount, the insured may recover that amount from the insurer.

> (2) Unless the contract expressly provides otherwise, the insured may not recover under sub-section (1)-
>
> > (a) an amount greater than the amount (if any) by which the amount recovered by the insurer exceeds the amount paid to the insured by the insurer in relation to the loss; or
> >
> > (b) an amount that, together with the amount paid to the insured under the contract, is greater than the amount of the insured's loss.
>
> (3) The rights of an insured and insurer under the preceding provisions of this section are subject to any agreement made between them after the loss occurred.
>
> (4) A reference in this section to an amount recovered by an insurer shall be construed as a reference to the amount so recovered less the administrative and legal costs incurred in connection with the recovery of the amount.

397 There are doubts as to how this section falls to be applied in the context of a group proceeding. There is a threshold question whether an insurer recovers a loss 'in exercising a right of subrogation' in this context.

398 It is unnecessary to examine this and other issues in detail. I agree that the proposed approach is reasonable and appropriate. In this regard, I note:

(a) uncertainty attaches to the interpretation of s 67 of the *Insurance Contracts Act 1984* as it was at the relevant date in any event;

(b) some of that uncertainty was sufficient to provoke criticism in the *Review of the Insurance Contracts Act 1984* undertaken by Cameron and Milne in June 2004,[91] which criticism led to the amendment of the Act in 2013;

(c) the application of s 67 to a particular case would on its face require the examination of the relevant insurance contract in each instance and enquiry as to whether subsequent agreement had been reached between the parties to it;

(d) the position in equity in the absence of s 67 is not free from doubt. A line of Canadian authority favours priority of the insured over the insurer;[92] a line of

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91 A Cameron and N Milne, *Review of the Insurance Contracts Act, Final report on second stage: provisions other than section 54*, Commonwealth of Australia, June 2004 <http://icareview.treasury.gov.au/content/Reports/FinalReport/_downloads/ICAFinalReport.pdf.>.

92 See for example *Lawton v Dartmouth Moving and Storage Ltd* (1975) 64 DLR (3d) 326; *Globe & Rutgers*

United Kingdom authority prefers the giving of priority to the insurer over the insured;[93] and at least one Canadian authority favours a form of pro-rata distribution;[94]

(e) the SDS must seek to provide for equity not only as between insured and insurer, but as between group members who are and are not insured; as between group members who have both a subrogated claim and an above insurance claim and other group members; and as between group members on whose behalf only a subrogated claim has been made and other group members;

(f) it is necessary to arrive at an outcome which is sufficient to prevent insurers objecting to the proposed compromise of rights to which they would be entitled to succeed and enjoy under rights of subrogation;[95]

(g) there has been no objection to this aspect of the proposal;

(h) the proposal is simple and on its face fair; and

(i) the proposal may be thought to reflect the policy of the current form of s 67 of the *Insurance Contracts Act 1984*.[96]

Future administration costs

399 The Court must also approve the SDS provisions for costs associated with the implementation of the scheme.

400 The future costs relate in particular to the administration costs associated with the implementation of the claims assessment procedure. The SDS contemplates that a

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Fire Insurance Co v Trudell [1927] 2 DLR 659.

93 See for example *Horse, Carriage and General Insurance Co (Ltd) v Petch* (1916) 33 TLR 131 and *Napier, Lord & Ettrick v Hunter* [1993] AC 713.

94 *Willumsen v Royal Insurance Co Ltd* (1975) 63 DLR (3d) 112.

95 *State Government Insurance Office (Qld) v Brisbane Stevedoring Pty Ltd* (1969) 123 CLR 228, 241 (Barwick CJ).

96 See especially s 67(4)-(7).

principal of Maurice Blackburn will act as Scheme Administrator, this role being almost entirely administrative and supervisory. While the SDS explicitly provides that the Scheme Administrator will not be involved in assessing claims and is not to act as a lawyer representing individual group members, he or she will:

(a) set and enforce deadlines;

(b) co-ordinate the other personnel handling the implementation of the SDS;

(c) supervise the administrator staff, expected to be solicitors, paralegals and support staff of Maurice Blackburn;

(d) administer questionnaires to group members;

(e) provide other information-gathering functions to ensure the orderly flow of information between claimants and the various assessors; and

(f) co-ordinate the various barristers and other persons who will be undertaking the actual claims-assessment work.

401 In addition, the assessment of individual claims will require work by whole teams of counsel, solicitors, legal staff and valuers.

402 It is submitted by the plaintiff's counsel that this work is valuable commercial work. The SDS proposes that this work be paid as a general disbursement from the available compensation funds, rather than by the group members in their individual capacities.

403 The hourly rates proposed in a confidential affidavit are submitted to be unexceptional commercial rates for legal work. They are not subject to any uplift. Ms Dealehr accepted the rates as reasonable, and likely to result in lower costs than if costs were charged in accordance with the plaintiff's retainer.

404 It is proposed that the fees and disbursements charged by the barristers and others who will be undertaking the assessment work will be invoiced to, and paid by, the

Scheme Administrator out of the distribution sum. It is anticipated that interest earned on the settlement sum will be sufficient to cover all administration costs in full.

405 Significantly, the SDS requires that all of the administration costs be approved by the Court before they are paid. The Scheme Administrator will be required to provide the Court with the material that it considers necessary for it to be satisfied that the costs are being reasonably incurred.

406 Once the implementation of the scheme has begun, a reassessment of the administration costs can be undertaken should it become necessary to determine whether they are fair and reasonable in practice.

407 I approve the SDS provisions for future administration costs.

Procedural provisions

408 No objection has been made to the proposed scheme's procedures and I do not propose to address them in any detail.

409 Mr Watson has elaborated the preparatory work that has been undertaken and the practical arrangements that have been made to implement them.

410 I have concluded that they are appropriate and strike a balance between the need on the one hand for expedition and certainty and the control of costs, and on the other hand the need for fair assessments.

411 Fundamentally, the SDS is concerned with procedures for establishing a value for every claim of every claimant. Those values will then provide the basis on which each of the funds will be distributed among the claims against that fund in the proportion which each individual claim's value bears to the total value of all of the claims against that fund. This will result in a pro-rata distribution despite the fact that the total value of the claims may come in substantially above the figure of $500 million.

412 The scheme also makes provision for interim distributions to group members whose claims are assessed relatively early. Because the funds in the I-D claim fund or the ELPD claim fund are interest-bearing, the subsequent interest entitlements of claimants who receive interim distributions will be adjusted.

413 The I-D claims are capped to provide for an 80 per cent recovery rate reflecting particular risks in respect of the claims against the State parties. If the total value of the I-D claims has been over-estimated, the excess of funds will become available to the ELPD claimants.

414 There are provisions for internal review of assessments of threshold disability and the quantum of damages in the case of I-D claimants and of the assessment of the quantum of damages in the case of ELPD claimants.

415 There are some specific provisions relating to minors and persons under a disability. The ultimate resolution of claims by person in these categories remains subject to approval by this Court.

ELPD assessment principles and multipliers.

416 It is necessary next to say something about the principles adopted for the assessment of ELPD damages because they are in effect a code and the relativities between the different types of provisions made raise the question whether the scheme for compensation is fair as between different types of claim and in turn different claimants.

417 The SDS provides:

(a) the ELPD assessors are to value the various ELPD loss items according to the narrative principles set out in Schedule A and otherwise according to the laws of Victoria; but

(b) once loss values have been determined in this way, those values are to be multiplied according to the 'ELPD multipliers' also listed for each item in

Schedule A to produce a final ELPD distribution value for each claim.

418 Schedule A then lists more than 40 discrete loss categories from homes to non-home buildings, to chattels, labour costs and non-economic losses. For each loss, item or category a narrative rule is stated which is intended to define the basis on which the value of the loss will be assessed.

419 The narrative rules reflect the contentions made for the plaintiff at trial regarding the proper basis for valuing the various kinds of losses. In summary, the narrative rules address the valuation of the following:

(a) the valuation of homes as opposed to non-home buildings, and the question of whether 'diminution of value' or 'reasonable reinstatement' is the proper basis for valuation;

(b) the complications involved in treating claims in different circumstances where home and non-home buildings have been rebuilt, partially rebuilt before property sale or not rebuilt before a property sale;

(c) the valuation of fences;

(d) the valuation of ordinary home contents and domestic chattels as opposed to collectibles and normal livestock as opposed to breed stock or bloodstock;

(e) issues regarding the valuation of gardens and trees, which have emerged from the exchange of a series of expert opinions;

(f) income losses by employees or self-employed persons not because of personal injury but because of damage to business assets or time off work to attend to personal assets or other disruptions from the fire, or wages lost by employees stood down because of the damage to their employer's assets or slowdown in trade;

(g) lost corporate income from damage to business assets or trade slowdown;

(h) pure economic loss not covered by the above items;

(i) the costs of alternative accommodation;

(j) the valuation of claimants' own/volunteer labour and own/donated materials; and

(k) the question of 'inconvenience damages'.

420 I accept that the scheme provided for in the Schedule provisions is a fair and reasonable one when looked at in the broad. Factors which support this conclusion are:

(a) it is fair to hold the claimant group generally to the position advanced at trial on their behalf as that constituting the proper basis for compensation. Indeed, it would be unfair to group members to depart from that basis without due notice and detailed justification;

(b) most claimants will have claims falling into more than one category and there will in effect be some averaging out of the relativities between different bases of assessment of damage;

(c) the potential claims are so heterogeneous that unless some simplified scheme of assessment is provided, the process of assessment of damages will be impractically costly, contentious and delayed;

(d) none of the insurers with rights of subrogation have objected to the scheme despite the fact that such claims must necessarily embrace categories of loss and damages falling within each part of the proposed Schedule;

(e) the Schedule responds sensibly to the experience of assessment of damages in other bushfire claims in recent times.

421 This leads to the discrete issue of 'ELPD multipliers'. Once the narrative principles have been applied to the assessment of value of a particular claim, that value is

further adjusted in a limited number of instances to, in effect, reflect inherent risks peculiar to that type of claim that such a loss would not be recovered if the relevant claim went to judgment.

422 I have carefully considered each of these adjustments and accept that they are also well-founded.

Trial participation

423 Section 12 of the SDS proposes to compensate the plaintiff and sample group members for their personal time and any incidental disbursements expended by them in assisting the plaintiff's lawyers to prepare for trial the issues which those claims raised. Reimbursement payments of this kind were made by Jessup J in *Darwalla Milling Co Pty Ltd v F Hoffman La Roche Limited (No 2)*[97] and by Gordon J in *Modtech Engineering Pty Ltd v GPT Management Holdings Limited (No 2)*,[98] although her Honour adjusted the quantum of the amount claimed.

424 I have formed a view on the basis of the affidavit material that the amounts in issue are reasonable.

425 The template potential of each claim sampled was what gave it significance. Further, I accept that the Court process to which individuals were subjected was itself gruelling and extended.

426 Finally, specific notice was given to other group members of the reimbursement payments and no objection was made to them.

The objections

427 Only three objections were ultimately pursued before the Court. The objection by Mr Exton was withdrawn at the hearing before me.

428 Mr Apted has lodged a letter of objection which relevantly states:

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97 (2006) 236 ALR 322, 346.
98 [2013] FCA 1163.

> My reasons are as follows, the proposed settlement of 33%. And After solicitors costs will not give me the funds to rebuild my home. I have lost one million in assets. My contents of the house. The house itself. If this settlement goes through I will have to sell the land also.
>
> I am a pensioner but I have the skills to rebuild my home again. I have lived in Strathewen for forty years and I love this part of the world. This settlement would make me sell the land and would not give me the finances to buy in another area. This is not satisfactory to me.

429 Plainly enough Mr Apted's concerns are genuine but they do not persuade me that the settlement figure as between the parties is unreasonable or that the SDS provisions are unreasonable.

430 The settlement necessarily involves a measure of compromise. For the reasons I have explained, I am of the view the overall settlement is reasonable.

431 In short, it will not provide group members with full compensation for their injuries, loss and damage (insofar as monetary damages can ever do this) but it will provide group members with some substantial compensation in circumstances where there was a real prospect that they would receive either no compensation or materially less than full compensation if the matter proceeded to judgment. In so doing, the settlement will also convey to group members the advantages of finalisation, avoidance of stress, advancement of payment and containment of costs to which I have already referred.

432 Mr Dunn has also lodged a written objection which states:

> The amount proposed to be accepted is insufficient compensation for the losses suffered by the victims of the bushfire.

433 Once again, it must be accepted that the settlement will not provide full compensation to the claimants. Nevertheless, in my view, it is a reasonable settlement for the reasons I have explained.

434 Mr Partington of Benalla has lodged a written objection, which is substantially comprised of a submission entitled 'The Corrupt Australian Octupus'. In large part it addresses issues relating to land use planning in response to bushfire risk and the

propriety of various government actions. I would reject this objection. Mr Partington is not a group member. His objection traverses (at least in part) some serious issues of the public interest but these issues cannot be resolved in the present proceeding and cannot determine the view which I should take in respect of the settlement of the group claim.

Confidentiality

435 The Court relies on disclosure by the plaintiff's legal advisers of their candid professional opinions concerning the settlement and the factual matters supporting those opinions. In *Lopez v Star World Enterprises Pty Ltd*, Finkelstein J addressed the difficulty which this may create for the lawyers acting for the parties:

> With regard to the application under s 33V, my principal task is to assess whether the compromise is a fair and reasonable compromise of the claims made on behalf of the group members. I am not so much concerned with the position of Mr Lopez who, after all, has solicitors and counsel to advise him as to how his interests will best be served in the litigation. The group members are not protected in this way. It is true that any group member may opt out of the proceeding to avoid his or her rights being affected in any way (whether adversely or beneficially) by the outcome of this litigation. But, I have no doubt that many members of this group (and no doubt members of other large groups who are represented in proceedings in the court) will remain as represented parties (that is not opt out of the proceeding) without a real appreciation of what that entails. In particular, it is likely that many group members will not understand that any judgment given in a representative proceeding will be binding upon them: see s 33ZB. Even if the group members are provided with a summary of the law relating to matters such as issue estoppel and *res judicata*, it is unlikely to be instructive to most of them.
>
> Accordingly, the task of the court in considering an application under s 33V is indeed an onerous one especially where the application is not opposed. It is a task in which the court inevitably must rely heavily on the solicitor retained by, and counsel who appears for, the applicant to put before it all matters relevant to the court's consideration of the matter. In this regard there would be few cases where the court can properly exercise its power under s 33V without evidence from the solicitor supported by counsel that the proposed compromise is in the interests of the group members. I appreciate that, on occasion, this will place the solicitor and counsel in a difficult position. The interests of their client will not always be coincident with the interests of the members of the group. But, in my view, that is no more than a necessary consequence of their client instituting a representative action.[99]

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99 *Lopez v Star World Enterprises Pty Ltd* (1999) ATPR 41-678, 42-670.

436 In *Pathway Investments Pty Ltd & Anor v National Australia Bank Limited (No 3)*,[100] Pagone J explored the consequential competing policy imperatives which govern claims for confidentiality in cases such as this.

> The need for confidentiality is often essential to the process of informing the Court about matters affecting its decision about whether or not to approve a settlement, but gives rise to potential difficulties and should be kept to a minimum. A candid evaluation of a client's case may require revealing facts or opinions of potential forensic value to other parties to the proceeding as well as to strangers to the proceeding and to potential litigants to other proceedings. Receipt of evidence confidentially assists the Court in its statutory duty of considering whether or not to approve the settlement by encouraging the practitioners to disclose to the Court fully and candidly the facts and opinions which are relevant, useful and desirable to be before the Court for consideration. However, the receipt of confidential material is in contrast to the general principle of justice being done, and being manifestly seen to be done, openly and in public.[101] In *Dye v Commonwealth Securities Ltd (No 2)*[102] it was said:
>
> > The principle of open justice operates on the premise that all the material placed in evidence before a court and on which, in open court, it is asked to act is open to public scrutiny. That is because publicity itself has the purposes of both informing the public of how judicial power is exercised and ensuring that the courts are accountable for the use of that power entrusted to them. Administrative power can be, and frequently is, exercised in secret. Judicial power almost never is and, when it is, the departure from the ordinary mode of trial must be demonstrated to be necessary in the interests of justice.[103]
>
> It is therefore important to ensure that any confidence extend only as far as is strictly necessary for the furtherance of the administration of justice. The need to balance the confidential expression of facts and views with the need for justice to be seen and to be done openly is of particular significance in the case of class actions where some members of the group, but not all, may have the ability to access the confidential information. The parties affected by a judicial decision, as well as the public on whose behalf a decision is made, are entitled to know the reasons for the decision. The Court is obliged to express reasons for its conclusions, and it is generally undesirable for those reasons not to be stated openly and clearly.[104] The general formulations of conclusions may not meaningfully convey reasons. There may be some cases where the Court may be able to express its reasons confidentially to the parties in such a way that all group members may have access to the

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100 [2012] VSC 625.

101 *Scott v Scott* [1913] AC 417; *R v Chief Registrar of Friendly Societies; Ex parte New Cross Building Society* [1984] 2 WLR 370, 377 (Sir John Donaldson MR).

102 [2010] FCAFC 118.

103 Ibid [121] (Marshall, Rares and Flick JJ); see also *David Syme & Co Ltd v General Motors-Holden's Ltd* [1984] 2 NSWLR 294, 310 (Samuels JA).

104 *David Syme & Co Ltd v General Motors-Holden's Ltd* [1984] 2 NSWLR 294.

> confidential reasons but that will not always be the case and that may not always be a satisfactory or desirable process to adopt. What must be conveyed in the reasons must be something which sufficiently explains why or how the Court has reached its conclusion about whether or not to approve the settlement. In this case the joint opinion of counsel is appropriate to be kept confidential except to the extent that its content is expressly referred to in these reasons. Counsel has expressed candid opinions about the strengths and weaknesses of the Plaintiffs' case which are confidential to the parties for whom they act…[105]

437 I accept that in the present case a number of documents upon which the plaintiff relies should be kept confidential. Nevertheless, confidentiality should not extend beyond what is strictly necessary for the administration of justice. In the present case, the opinions of counsel are properly kept confidential but the submissions made in open court concerning aspects of their subject matter are not to be so regarded.

438 Likewise, whilst the specific content of sampling and modelling of quantum undertaken on behalf of the claimants should remain confidential the general nature of such sampling and modelling is (as counsel conceded) properly disclosed. Unless the process is described then the basis of its outcome and my assessment of it would simply not be apparent.

439 Similar considerations concern the methodology of the costs consultants because, as I have said, the methodology of the costs consultants is critical to the credibility of their opinion, I have described that methodology but not specific costings made by them or the figures at which they ultimately arrived.

440 In the circumstances of the case, I accept that the following documents should be the subject of orders protecting their confidentiality, save to the extent that their contents are expressly referred to in these reasons.

1. Affidavit of Andrew John Watson dated 10 November 2014
2. Exhibit AJW 4 — Schedules A and B of the Settlement Distribution Sche me

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105 *Pathway Investments Pty Ltd & Anor v National Australia Bank Limited (No 3)* [2012] VSC 625, [5] (citations in original).

3. Exhibit AJW 8 — Advice of independent counsel

4. Exhibit AJW 9 — Confidential opinion of trial counsel as to reasonableness of the proposed settlement

5. Exhibit AJW 10 — Correspondence from Hall & Wilcox to Maurice Blackburn dated 3 July 2014

6. Exhibit AJW 11 — Correspondence from Maurice Blackburn to Hall&Wilcox dated 7 July 2014

7. Exhibit AJW 12 — Communications between mediator and the parties as to quantum

8. Exhibit AJW 13 — Proposed settlement sum distribution

9. Affidavit of Catherine Mary Dealehr dated 10 November 2014

10. Affidavit of Joseph Anthony Mazzeo dated 10 November 2014

11. Further affidavit of Joseph Anthony Mazzeo dated 11 November 2014

12. Further affidavit of Andrew John Watson dated 21 November 2014

441 These orders are made pursuant to s 33ZF of the *Supreme Court Act 1986*, alternatively the inherent jurisdiction of the Supreme Court[106] and r 28.05 of the *Supreme Court (General Civil Procedure) Rules 2005*.

Orders

442 I will make orders generally in accordance with the minutes submitted to me but varied in respect of certain matters referred to in the course of the hearing before me and by way of amplification in some other respects.

106 *Open Courts Act 2013*, s 5

ANNEXURE A

List of Common Questions
[Amended 8 March 2013]

PRELIMINARY

1. What was the cause of the ignition of the Kilmore fire ("the **fire**")?

2. What areas were damaged by the fire ("the **fire areas**")?

THE CLAIMS AGAINST SPI

SPI STATUTORY DUTY

3. Did section 75 of the ES Act impose upon SPI any and if so what statutory duty which gave rise to or created any private right or cause of action for the benefit of any claimants and/or class of claimants?

4. Did SPI breach the statutory duty in relation to the SWER line and/or the pole and its infrastructure?

5. If SPI breached the statutory duty, was this a cause of any losses sustained by the claimants and/or class of claimants?

SPI COMMON LAW DUTY

6. Did SPI owe a common law duty to any claimants and/or class of claimants to exercise reasonable care in relation to the management, maintenance and control of the SWER line and/or the pole and its infrastructure to avoid:
    (a) personal injury or death; and/or
    (b) physical damage to property; and/or
    (c) economic loss resulting from damage to property; and/or
    (d) economic loss which did not result from damage to property?

7. Did the common law duty extend to SPI ensuring that reasonable care was taken by any contractors engaged by it in relation to the management, maintenance and control of the SWER line?

8. Did SPI breach the common law duty in relation to the SWER line and/or the pole and its infrastructure?

9. If SPI breached the common law duty, was such breach a cause of any losses sustained by the claimants and/or class of claimants?

SPI NUISANCE

10. Did SPI create a nuisance, in the form of the fire, which unreasonably interfered with the use or enjoyment of land (or interest in land) of any of the claimants and/or class of claimants?

11. Is SPI liable to any of the claimants and/or class of claimants for any loss or damage caused by the creation of a nuisance, in the form of the fire?

THE CLAIMS AGAINST UAM

UAM COMMON LAW DUTY

12. Did UAM owe a common law duty to any claimants and/or class of claimants to exercise reasonable care in carrying out its operations in relation to the SWER line and/or the pole and its infrastructure pursuant to the UAM Contract to avoid:

    (a) personal injury or death; and/or
    (b) physical damage to property; and/or
    (c) economic loss resulting from damage to property; and/or
    (d) economic loss which did not result from damage to property?

13. Did UAM breach the duty in relation to the SWER line and/or the pole and its infrastructure?

14. If the UAM breached the common law duty, was such breach a cause of any losses sustained by any of the claimants and/or class of claimants?

15. Is SPI liable for any losses caused by the breach by UAM of its common law duty?

THE CLAIMS AGAINST DSE

DSE STATUTORY DUTIES

16. Did section 62(2) of the *Forests Act* impose upon DSE any, and if so what, statutory duty which gave rise to or created any private right or cause of action for the benefit of any claimants and/or class of claimants?

17. Did section 17(2)(b) of the *National Parks Act* impose upon DSE any statutory duty, and if so what, which gave rise to or created any private right or cause of action for the benefit of any claimants and/or class of claimants?

18. Did DSE breach either of the above statutory duties?

19. If DSE breached either of the statutory duties, was such breach a cause of any losses sustained by any claimants and/or class of claimants?

DSE COMMON LAW DUTIES

20. Did DSE owe a common law duty to any claimants and/or class of claimants to take reasonable care to ensure that proper and sufficient planned burning for the prevention or suppression of fire was carried out in a timely and/or efficient manner for the Kilmore Fire Area Public Land?

21. Did DSE owe a common law duty to the personal injury claimants to exercise reasonable care in the provision of bushfire warnings to persons in the fire area?

22. Did DSE owe a common law duty to the personal injury claimants to take reasonable care in the provision of advice to members of the Victoria Police to enable them to issue bushfire warnings to persons in the fire area?

23. Did DSE breach any of the common law duties?

24. If DSE breached any of the common law duties, was such breach a cause of any losses sustained by any claimants and/or class of claimants?

THE CLAIMS AGAINST CFA

CFA STATUTORY DUTY

25. Did section 20 of the CFA Act impose upon the CFA any and if so what statutory duty which gave rise to or created any private right or cause of action for the benefit of any personal injury claimants and/or class of personal injury claimants?

26. Did CFA breach the statutory duty?

27. If CFA breached the statutory duty, was such breach a cause of any losses sustained by any personal injury claimants and/or class of personal injury claimants?

28. Did the CFA owe a common law duty to the personal injury claimants to exercise reasonable care in the provision of advice to members of Victoria Police to enable them to issue bushfire warnings to persons in the fire area?

29. Did CFA owe a common law duty to the personal injury claimants to exercise reasonable care in the provision of bushfire warnings to persons in the fire area?

30. Did CFA breach any of the common law duties?

31. If CFA breached any of the common law duties, was such breach a cause of any losses sustained by any personal injury claimants and/or class of personal injury claimants?

THE CLAIM AGAINST VICTORIA POLICE

VICTORIA POLICE COMMON LAW DUTY

32. Did the emergency response plan State Coordinator, Deputy Coordinator or the Kilmore Fire Emergency Response Coordinators owe a common law duty to the personal injury claimants to take reasonable care to issue effective and timely bushfire warnings to persons in the fire areas?

33. Did any of the identified members of the Victoria Police breach the common law duty?

34. If an identified member(s) of the Victoria Police breached the common law duty, was such breach a cause of any personal injury sustained by the claimants and/or class of claimants?

35. Are claims for economic loss or property damage against the First, Second, Third and Fourth Defendants 'apportionable' claims within the meaning of Part IVAA of the Wrongs Act?

36. For any apportionable claims, are any of the defendants concurrent wrongdoers and, if so, what is the proportionate responsibility of each concurrent wrongdoer in each case?

37. To what extent, if any, are SPI, UAM, DSE, CFA and the State of Victoria liable to make contribution to or indemnify each other pursuant to Part IV of the Wrongs Act in respect of their respective liabilities?

BINDING EFFECT

38A. For the purposes of formulating a judgment conforming to section 33ZB(1) of the *Supreme Court Act 1986*, which answers to each question above, alternatively which findings made for the

purposes of answering each or any question above, are binding on:

(a) the plaintiff?

(b) any and if so which *sample* group members?

(c) any and if so which *subgroup* of group members?

(d) all the group members?

(e) all or any of the defendants?

CONTRACTUAL CLAIMS

38. Did UAM breach the UAM contract?

39. If UAM breached the UAM contract, did SPI suffer loss or damage as a result of that breach?

40. If UAM breached the UAM contract, and SPI suffered loss and damage, was any loss and damage caused by that breach?

41. If UAM breached the UAM contract and SPI did suffer loss or damage, is UAM obliged to indemnify SPI for that loss and damage?

42. If SPI suffered loss and damage and damages are recoverable by SPI against UAM:

    (a) Was SPI contributory negligent; and

    (b) If so, to what extent, having regard to SPI's share in the responsibility for the SPI loss and damage, should the damages recoverable by SPI against UAM be reduced?

S C H E D U L E O F P A R T I E S

S CI 2009 4788

BETWEEN:

CAROL ANN MATTHEWS	Plaintiff
- and -	
AUSNET ELECTRICITY SERVICES PTY LTD (formerly SPI ELECTRICITY PTY LTD) (ACN 064 651 118)	First Defendant
ACN 060 674 580 PTY LTD	Second Defendant
SECRETARY TO THE DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT	Third Defendant
COUNTRY FIRE AUTHORITY	Fourth Defendant
STATE OF VICTORIA	Fifth Defendant

AND BETWEEN

AUSNET ELECTRICITY SERVICES PTY LTD (formerly SPI ELECTRICITY PTY LTD) (ACN 064 651 118)	Plaintiff by counterclaim
- and -	
ACN 060 674 580 PTY LTD	First Defendant by Counterclaim
SECRETARY TO THE DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT	Second Defendant by Counterclaim
COUNTRY FIRE AUTHORITY	Third Defendant by Counterclaim
STATE OF VICTORIA	Fourth Defendant by Counterclaim
CAROL ANN MATTHEWS	Fifth Defendant by Counterclaim

AND BETWEEN

ACN 060 674 580 PTY LTD	Plaintiff by UAM Counterclaim
- and -	
AUSNET ELECTRICITY SERVICES PTY LTD (formerly SPI ELECTRICITY PTY LTD) (ACN 064 651 118)	First Defendant by UAM Counterclaim
SECRETARY TO THE DEPARTMENT OF SUSTAINABILITY AND ENVIRONMENT	Second Defendant by UAM Counterclaim
COUNTRY FIRE AUTHORITY	Third Defendant by UAM Counterclaim
STATE OF VICTORIA	Fourth Defendant by UAM Counterclaim
CAROL ANN MATTHEWS	Fifth Defendant by UAM Counterclaim
