WORKERS COMPENSATION COMMISSION

CERTIFICATE OF DETERMINATION

(Issued in accordance with section 294 of the *Workplace Injury Management and Workers Compensation Act* 1998)

MATTER NO:	**2215/15**
APPLICANT:	**Haridra De Silva**
RESPONDENT:	**Secretary, Department of Finance, Services and Innovation**
DATE OF DETERMINATION:	**7 October 2015**
CITATION:	**[2015] NSWWCC 279**

The Commission determines:

Findings:

1. Kamal Fernando (the deceased) died on or about 20 August 2014 as a result of injury received by him in the course of his employment with the respondent.

2. The injury was a 'heart attack injury' within the meaning of section 9B of the *Workers Compensation Act* 1987.

3. The provisions of section 9B of the *Workers Compensation Act* 1987 are satisfied.

4. As at the date of death of the deceased Haridra De Silva (the applicant) was partially dependent on the deceased for support.

5. There were no other persons dependent for support on the deceased as at the date of death.

Orders

6. The respondent is to pay the sum of $510,800, being the lump sum death benefit payable pursuant to section 25(1)(a) of the *Workers Compensation Act* 1987, to the applicant.

A brief statement is attached to this determination setting out the Commission's reasons for the determination.

I CERTIFY THAT THIS PAGE AND THE FOLLOWING PAGES IS A TRUE AND ACCURATE RECORD OF THE CERTIFICATE OF DETERMINATION AND REASONS FOR DECISION OF MICHAEL SNELL, SENIOR ARBITRATOR, WORKERS COMPENSATION COMMISSION.

Sarojini Naiker
Senior Dispute Services Officer
By Delegation of the Registrar

STATEMENT OF REASONS

BACKGROUND

1. Haridra De Silva (the applicant) is the widow of the late Kamal Fernando (the deceased). The deceased was employed as a principal engineer by Water and Waste Water Technologies, which was a part of New South Wales Public Works, it in turn being part of the then Department of Finance and Services (the respondent). The deceased, at the time of his death, ordinarily resided with the applicant at Lidcombe, a suburb of Sydney.

2. The deceased was required in his work "to travel to many locations around the State to undertake projects and for business developments/marketing" (Mr Wilkins's statement at [11]).

3. On 18 August 2014 the deceased travelled, in company with another engineer from the respondent (Deependra Ugugama) to Ballina. They stayed at the Ballina Comfort Inn (the motel). On 19 August 2014 they attended meetings, conducted site inspections and the deceased participated in a telephone conference. That night they had dinner at the home of Wayne Franklin, a technical services director with Rous Water (with which firm the deceased was dealing).

4. After dinner the deceased and Ms Ugugama retired to their respective rooms at the motel, arranging to meet for breakfast at 7.15 am the next day. The deceased failed to attend breakfast. Ms Ugugama could not raise him. Eventually the motel receptionist, in company with Ms Ugugama, entered the deceased's room with a master key. The chain securing the door had to be forced to obtain entry. The deceased had died alone in the room.

5. The autopsy report of Dr Forsyth gave the direct cause of death as "ischaemic heart disease" and the antecedent cause as "coronary atherosclerosis". The death certificate was consistent with this.

6. The applicant's solicitors made a claim in respect of the lump sum benefit pursuant to section 25(1)(a) of the *Workers Compensation Act* 1987 (the 1987 Act) by letter dated 13 November 2014. The essential basis of this was that "the deceased was unable to seek help when he would have experienced symptoms as he was alone in his motel room".

7. The respondent's insurer issued a section 74 notice dated 2 December 2014. This notice raised section 9B of the 1987 Act. The essential basis of the denial was as follows:

> "It is considered that the injury consisted of a heart attack injury and the nature of the employment concerned did not give rise to a significantly greater risk of the deceased suffering injury than had the deceased not been employed in employment of that nature (Section 9B of the Workers Compensation Act 1987)."

8. The proceedings were commenced by an Application in Respect of Death of Worker registered on 21 April 2015 (the Application).

9. The applicant relied on reports of Professor Raftos dated 6 March 2015 and 22 July 2015. The respondent relied on a report from Dr Herman dated 25 May 2015.

PROCEDURE BEFORE THE COMMISSION

10. The parties attended an arbitration hearing on 6 August 2015. Mr Graham of counsel appeared for the applicant and Mr Lowe of counsel for the respondent. I am satisfied that the parties to the dispute understand the nature of the application and the legal implications of any assertion made in the information supplied. I have used my best endeavours in attempting to bring the parties to the dispute to a settlement acceptable to all of them. I am satisfied that the parties have had sufficient opportunity to explore settlement and that they have been unable to reach an agreed resolution of the dispute.

11. The applicant, subsequent to the arbitration hearing, lodged an Application to Admit Late Documents dated 2 September 2015, attaching a first aid certificate relating to the applicant dated 28 September 2008. At the applicant's request the matter was listed for telephone conference on 4 September 2015 to seek leave to rely on this material.

12. The respondent's counsel furnished supplementary submissions to the Commission under cover of an email dated 3 September 2015.

13. At the telephone conference on 4 September 2015 the applicant's counsel indicated his consent to the respondent having leave to rely on its supplementary submissions. The applicant's counsel was given seven days to respond to these.

14. The respondent's solicitor opposed the applicant's application for leave to rely on the relevant late documents. The essential basis of the opposition was that, as this application post-dated the arbitration hearing, the respondent would suffer prejudice as it would be deprived of the opportunity to cross-examine on the first aid certificate. The applicant was given leave to rely on these late documents. With a view to curing the prejudice identified by the respondent, the matter was listed for further arbitration hearing on 15 October 2015 to allow the respondent an opportunity to cross-examine on the further material.

15. The further arbitration date was vacated by consent on 11 September 2015, after the respondent indicated it did not wish to persevere with its application to cross-examine.

EVIDENCE

Documentary Evidence

16. The following documents were in evidence before the Commission and taken into account in making this determination:

    (a) Application;
    (b) Reply;
    (c) applicant's Application to Admit Late Documents dated 23 July 2015 (admitted without objection);
    (d) respondent's Application to Admit Late Documents dated 25 May 2015 (admitted without objection);
    (e) copy letter from the respondent's solicitors to Dr Herman dated 21 May 2015, enclosing copies of three documents which had been furnished to Professor Raftos and Dr Herman when they reported in respect of the death of the deceased, admitted without objection and marked '1';

(f) copy letter from the respondent's solicitors to Dr Herman dated 1 May 2015, qualifying that doctor to give evidence in the matter. This document was furnished to the Commission by email dated 12 August 2015, consistent with discussion at the hearing and its admission was not contentious;
(g) email from the applicant's counsel dated 28 August 2015, furnishing the names and references to two authorities which were referred to in the applicant's oral submissions;
(h) supplementary submissions of the respondent's counsel received in the Commission on 3 September 2015;
(i) submissions in reply from the applicant's counsel dated 7 September 2015, and
(j) applicant's Application to Admit Late Documents dated 2 September 2015, admitted in the circumstances described at [14] above.

Oral Evidence

17. There were no applications to adduce oral evidence or to cross-examine, beyond the application made on 4 September 2015 which was not ultimately persevered with.

18. The Application claimed the lump sum death benefit pursuant to section 25(1)(a) of the 1987 Act on behalf of the applicant only, stating that the applicant was unaware of any other person who may have been dependent on the deceased at the date of death. The deceased had a daughter, Hasaro Fernando. Ms Fernando was present at the arbitration hearing accompanying the applicant, her mother. Mr Graham took instructions and announced, without objection, that Ms Fernando was born on 19 April 1988, was now 27 years of age, worked full-time and did not claim to have been dependent on the deceased at the date of death.

19. Mr Graham also announced without objection that the applicant had carried on a business from home doing some drafting work. This business had never yielded her an income in excess of $50,000 per annum. The deceased received a commencing salary of $121,384 per annum when appointed to his position as principal engineer with the respondent in 2005 and that income had increased thereafter. The deceased was the main money earner in the marriage and made provision for the applicant. This was the position at the date of death of the deceased.

20. On 12 August 2015 the respondent's counsel forwarded an email to the Commission and to the applicant's counsel stating that it was conceded, for the purpose of the proceedings, that the applicant was partially dependent for support on the deceased as at the date of death.

21. The above is sufficient to support findings that the applicant was partially dependent on the deceased as at the date of his death and that there were no other persons dependent on the deceased for support at that date.

REASONS

The Applicant's Submissions

22. The submissions were recorded and do not need to be recited in detail. Mr Graham said that the only issue raised in the section 74 notice was section 9B of the 1987 Act. Did that section preclude recovery of compensation in respect of this 'heart attack injury'? More general issues of injury and causation were not raised in the notice.

23. Professor Raftos is a highly experienced and well qualified doctor practicing in emergency medicine. He is well placed to comment on the issues raised. He answered the concerns raised in the report of Dr Herman. He is better placed than Dr Herman to comment on the issues raised, his evidence should be preferred to that of Dr Herman.

24. Reference was made to a document headed "Highly Confidential" in the material attached to Exhibit '1'. I infer it was written by Dayan Gunasekera, whose unsigned statement dated 26 September 2014 is also attached to Exhibit '1'. The document referred to the applicant as "being worried that something would happen" to the deceased due to his sleep apnoea and said that the applicant "was always alert because of this". It stated the applicant had "woken Kamal up at midnights many times telling that he was not breathing". It was submitted that if the deceased was disturbed by chest pain or illness, the applicant would probably have noticed and acted upon it.

25. Mr Graham referred to the statement of Ms Ugugama dated 13 January 2015 at [36] and [37]. The deceased was found seated on the floor in his nightclothes. His bed did not look as if it had been slept in.

26. The deceased's employment was of such a nature that he had to travel from time to time and this placed him in a motel room on his own, which "gave rise to a significantly greater risk of the [deceased] suffering the injury". Mr Graham posed the question as whether the fact that the deceased was on his own in a motel room gave rise to a significantly greater risk of the deceased dying. He referred to the meaning of a 'significantly greater risk' in section 9B as being a test slightly more onerous than a risk being 'not far fetched or fanciful'.

27. Mr Graham referred to *Shaw v Thomas* [2010] NSWCA 169 (*Shaw*) and *Shoalhaven City Council v Pender* [2013] NSWCA 210 (*Pender*) (authorities involving the *Civil Liability Act* 2002 [Civil Liability Act]) as being of potential relevance to the meaning of 'significantly greater risk' in section 9B(1) of the 1987 Act.

28. Reference was made to the following passage from the report of Dr Herman:

> "The reasons for continued poor survival of patients with sudden cardiac arrest are not certain and although some aspects of resuscitation have improved over time, these positive trends have often been offset by other features including increasing age. It is certainly true that patients with witnessed ventricular fibrillation cardiac arrests have a significantly greater likelihood of surviving to post hospital discharge (than those with other rhythm disturbances) but the survival rates at best remain poor at approximately 34% in some series."

29. Mr Graham submitted that survival rates of such magnitude, where ventricular fibrillation is witnessed, are consistent with the proposition that the employment (where it resulted in the cardiac event not being witnessed) resulted in 'significantly greater risk' of the 'heart attack injury'. If there was a significant increase in the risk of mortality, if the cardiac event was unwitnessed, this in the circumstances would be sufficient.

30. The ventricular fibrillation and cardiac arrest were "consequential physical harm or damage" within the meaning of section 9B(2)(n) of the 1987 Act. There was a significantly greater risk of this consequential damage due to the deceased's employment, which placed him on his own in a motel room when he suffered the myocardial infarction, pain and nausea. Ventricular fibrillation was the ultimate 'heart attack injury' within the definition in sub-clause (n), which resulted in death.

31. The residence of the deceased and the applicant was at Lidcombe, in the Sydney metropolitan area. It was convenient to a number of hospitals. Ambulances were all provided with defibrillators. The deceased, because he was alone, lost the opportunity to have an ambulance arrive in a timely manner. It is unnecessary for the applicant to demonstrate, on the probabilities, that the outcome would have been different if the deceased was not alone. What the section requires is a significantly greater risk. If there was a not insignificant increase in the risk, this is sufficient to satisfy the section.

32. In reply, Mr Graham referred to a concession by Dr Herman that, had the deceased sought medical attention, "the results may have been different as postulated by Professor Raftos". He referred to the following passage from the report of Professor Raftos:

> "If an individual suffers ventricular fibrillation and is defibrillated immediately, then the likelihood of neurologically-intact survival is greater than 85% . If an individual suffers ventricular fibrillation in the absence of a defibrillator, then the likelihood of neurologically-intact survival depends on the time to defibrillation and the provision of effective cardiopulmonary resuscitation (CPR) before defibrillation."

33. It was submitted that the applicant clearly would have been made aware of the deceased's plight as the deceased was physically ill.

34. The question posed by the section is whether, as a result of the deceased being alone, there was a significantly greater risk of him suffering the injury. The injury relevantly is ventricular fibrillation leading to cardiac arrest. The applicant relied on a combination of the descriptors at (e) and (n) of the sub-clauses in the definition. One only looks at the risks. Did the fact that the deceased was deprived of the opportunity of someone intervening to seek medical assistance result in a significant increase in the risk? The applicant submitted this was clearly so. The evidence overall clearly supported the proposition that a person in such circumstances is better off if treated with a defibrillator.

The Respondent's Submissions

35. Section 9B of the 1987 Act was inserted by the *Workers Compensation Legislation Amendment Act* 2012 (the amending Act) and commenced on 27 June 2012. Mr Lowe indicated the only decision of which he was aware dealing with the section was *Veljanoski v Core Civil Comm Pty Limited* [2015] NSWWCC 123 (*Veljanoski*). He submitted that decision did not assist in dealing with the issues raised in the current claim.

36. Death itself is not an injury. Section 25 of the 1987 Act refers to death which "results from an injury". Professor Raftos, after referring to the death certificate, described the sequence:

> "Mr De Silva died because of cardiac arrest in ventricular fibrillation which occurred as a result of acute coronary syndrome caused by occlusion of his left anterior descending coronary artery as a result of atherosclerosis."

37. The definition in section 9B(2) has two components, "an injury to the heart, or any blood vessel supplying or associated with the heart", and that injury consisting of, being caused by, resulting in or being associated with the various specific descriptors at (a) to (o) of the definition.

38. It was submitted that there was no evidence of any consequential physical harm or damage resulting from the heart attack injury, other than the occurrence of death. It was conceded that cardiac arrest could potentially constitute "physical harm". However the injury was the

heart attack itself, the acute coronary syndrome. The primary event or condition was the coronary occlusion and the resultant infarction. It is artificial to try to identify some aspect of the consequences of the primary condition, on the basis one can identify a greater risk associated with that aspect, and to focus on that. The primary event is the 'heart attack'. The intention of the legislature was to require that the employment result in a significantly greater risk of the heart attack injury, not of various consequences of the heart attack injury (such as ventricular fibrillation).

39. The matters set out at sub-clauses (a) to (o) of the definition are descriptive qualifications to the primary part of the definition, which precedes them.

40. There is no evidence that the applicant had any experience in cardiopulmonary resuscitation or would have carried out resuscitation had she been present.

41. It was submitted that better evidence could have been available, for example from the Ambulance Service, going to the likely response time for an ambulance to attend at the home of the deceased on the night in question. It is unknown at what point in time the deceased would have roused his wife had he been at home. The evidence of Professor Raftos was speculative in how it dealt with what would probably have happened had the deceased been at home on the night he suffered the myocardial infarction.

42. Dr Herman noted that the only known facts were the occurrence of the myocardial infarction and the subsequent cardiac arrest and what may or may not have occurred had the deceased been at home is entirely speculative.

43. Mr Lowe said that the Second Reading speech of the amending Act did not assist.

The Respondent's Supplementary Submissions

44. To satisfy section 9B it is necessary that a significantly greater risk arise from the "nature of the employment concerned". This is a reference not to a single or particular aspect of the employment (such as being alone in a motel room). It is a reference to something which occurs "for a duration or with a degree of regularity" such that it could be characterised as defining or constituting an integral part of the nature of the employment.

45. A distinction is to be drawn between a disease "due to" employment and a disease "due to the nature of employment". Reference was made to *Commonwealth v Bourne* [1960] HCA 26; 104 CLR 32 (*Bourne*) and *Connair Pty Ltd v Frederiksen* [1979] HCA 25; 142 CLR 485 (*Connair*).

46. The respondent accepted that there was "a dearth of local authority" going to the meaning of the phrase "significantly greater risk". The respondent submitted that little assistance was gained from the decisions of *Shaw* and *Pender* cited by the applicant. Those decisions dealt with a "completely different test" in the context of the *Civil Liability Act*.

47. There was no reported authority dealing with a similar expression in the *Workplace Injury Rehabilitation and Compensation Act* 2013 (*Victoria*).

48. The respondent's supplementary submissions referred to a number of authorities dealing with section 33(2)(c) of the *Accident Compensation Act* 2001 (*New Zealand*) (the New Zealand legislation).

The Applicant's Supplementary Submissions in Reply

49. The applicant referred to the statement of Mr Wilkins dated 13 January 2015, in particular to the passage quoted at [2] above. Being absent from home and alone in motel rooms was integral to the nature of the employment of the deceased.

50. The applicant submitted that the "New Zealand decisions are useful". Reference was made to *Turner v Accident Compensation Corporation* [2007] NZACC 229 (*Turner*) in which Ongley J, in considering the meaning of the phrase "significantly greater risk", referred to the definition of "significantly" in the Oxford English Dictionary in relation to statistics.

51. It was submitted that the nature of the deceased's employment placed him at significantly greater risk of relevantly suffering an injury if he was alone in a country motel room.

The Legislation

52. Section 9B of the 1987 Act, in so far as it applies to 'heart attack injury', provides:

> "**9B No compensation for heart attack or stroke unless nature of employment results in significantly greater risk**
>
> (1) No compensation is payable under this Act in respect of an injury that consists of, is caused by, results in or is associated with a heart attack injury or stroke injury unless the nature of the employment concerned gave rise to a significantly greater risk of the worker suffering the injury than had the worker not been employed in employment of that nature.
> (2) In this section:
>
> ***heart attack injury*** means an injury to the heart, or any blood vessel supplying or associated with the heart, that consists of, is caused by, results in or is associated with:
>
> (a) any heart attack, or
> (b) any myocardial infarction, or
> (c) any myocardial ischaemia, or
> (d) any angina, whether unstable or otherwise, or
> (e) any fibrillation, whether atrial or ventricular or otherwise, or
> (f) any arrhythmia of the heart, or
> (g) any tachycardia, whether ventricular, supra ventricular or otherwise, or
> (h) any harm or damage to such a blood vessel or to any associated plaque, or
> (i) any impairment, disturbance or alteration of blood, or blood circulation, within such a blood vessel, or
> (j) any occlusion of such a blood vessel, whether the occlusion is total or partial, or
> (k) any rupture of such a blood vessel, including any rupture of an aneurism of such a blood vessel, or
> (l) any haemorrhage from such a blood vessel, or
> (m) any aortic dissection, or
> (n) any consequential physical harm or damage, including harm or damage to the brain, or
> (o) any consequential mental harm or damage."

Discussion

Onus

53. The sole issue raised by the respondent in its section 74 notice was whether compensation was payable having regard to the provisions of section 9B of the 1987 Act.

54. Neither party submitted on the issue of onus. The submissions of both parties proceeded on an apparent acceptance that the applicant carried the onus of establishing that the injury to the deceased was compensable having regard to the operation of section 9B. The only decision to which I was referred, dealing with the section, approached it on the basis that the worker bore the onus (*Veljanoski* at [85]).

55. As a general proposition, he who asserts must prove (*Commonwealth v Muratore* [1978] HCA 47; 141 CLR 296 at 302–3). The wording of sub-section (1) suggests the matters to be established are conditions of entitlement, although they involve a negative proposition, and accordingly the applicant bears the onus (see *Ritchie v Department of Community Services* (1998) 16 NSWCCR 727 at [42] and [43]). I will approach the section on that basis.

The Nature of the Employment of the Deceased

(i) What is the 'Employment Concerned'?

56. The respondent referred to decisions of the High Court in *Bourne a*nd *Connair*. It was submitted that there is a distinction between a disease "due to" employment and disease "due to the nature of" employment. A disease due to the nature of employment does not need to be due to "the particular incidents of a particular employment".

57. *Bourne* involved the 'disease' provisions of the *Commonwealth Employees Compensation Act* 1930-1956. It was necessary for a worker to establish that disease was "due to the nature of the employment in which the employee was engaged". It is sufficient to refer to the Headnote which states:

> "*Held*, that the expression 'due to the nature of the employment in which the employee was engaged' refers to results which are incidental to the class of the employment by virtue of its tendencies, incidents or characteristics, and is not concerned directly with something arising out of the particular service of the particular employee."

58. *Connair* involved the *Workers Compensation Ordinance* 1949 (Northern Territory). The relevant 'disease' provision was in similar terms. Barwick CJ at [2] said:

> "But whether it be the disease itself, or its aggravation, the worker's condition must be due, not to the particular incidents of a particular employment, but to the nature of the class or classification of employment in which he was engaged: perhaps "occupation" is the appropriate synonym for employment in this connexion."

59. The respondent submits that it is insufficient that the risk arose from a single or particular aspect of the employment, being alone in a motel room away from home. It is necessary that the risk be one "that occurred for a duration or with a degree of regularity that would permit it to properly be characterised as relevantly defining, or even constituting an integral part of, the 'nature of the employment'."

60. The applicant referred to a statement of Mr Wilkins dated 14 January 2015, and submitted that it was "clear that being absent from home and alone in motel rooms was integral to 'the nature of the employment concerned'". The applicant's submission went to the duties of the particular employment rather than to a class of employment.

61. In construing the legislation it is necessary to have regard to context. In *Wilson v State Rail Authority of New South Wales* [2010] NSWCA 198 Allsop P (Giles, Hodgson, Tobias and Macfarlane JJA agreeing) at [12] said:

> "I am mindful that any initial engagement with enactment history and context might be misunderstood as part of any enquiry as to the subjective intent of legislators or policy advisers so that such divined intent can be transferred to the words used by Parliament. Such an enquiry would be misdirected. It is the language of Parliament that must be interpreted and construed: *Harrison v Melhem* [2008] NSWCA 67; 72 NSWLR 380 at 384-385 [12]- [16] (Spigelman CJ), 398-403 [158]-[185] (Mason P), 403 [191] (Beazley JA) and 403 [192] (Giles JA). However, as is now beyond dispute, in construing an Act, a court is permitted to have regard to the words used by Parliament in their legal and historical context. Context is to be considered in the first instance, not merely when some ambiguity is discerned. Context is to be understood in its widest sense to include such things as the existing state of the law and the mischief or object to which the statute was directed. These are legitimate means of understanding the purpose of the Act and of the relevant provisions, against which the terms and structure of the provisions and the Act, and a whole, are to be understood. Fundamental to the task, of course, is the giving of close attention to the text and structure of the Act, as the words used by Parliament to effect its legislative purpose. Nevertheless, general words, informed by an understanding of the context, and of the mischief to which the Act is directed, may be constrained in their effect."

62. In *Bourne* and *Connair* the phrase 'the nature of employment' was construed in the context of the 'disease' provisions in the Commonwealth legislation. Dixon CJ in *Bourne* at [7] said:

> "In the provisions to which the use of the expression is to be traced the purpose of using the words 'due to the nature of the employment' and not 'due to the employment' was to provide for ready recourse by the employee to the latest employer who employed him in work to the nature of which his complaint was due independently of the question whether working for that particular employer contributed at all to his condition or aggravated it or accelerated its development; that employer could then claim over against a previous employer employing the claimant in work of a like nature and so on down the line. It was accordingly necessary to make the nature of the work the test and not the actual work done or the employment as it actually affected the man."

63. The context in which the phrase 'the nature of the employment' is used in section 9B of the 1987 Act is different. It is a provision which deals with 'heart attack injury' and 'stroke injury'. It does not necessarily deal with the 'disease' provisions, although could have application to an injury falling under the 'disease' provisions.

64. In *Alcan (NT) Alumina Pty Ltd v Commissioner of Territory Revenue (NT)* [2009] HCA 41; 239 CLR 27 Hayne, Heydon, Crennan and Kiefel JJ at [49] said (excluding references):

> "This Court has stated on many occasions that the task of statutory construction must begin with a consideration of the text itself. Historical considerations and extrinsic materials cannot be relied on to displace the clear meaning of the text. The language

which has actually been employed in the text of legislation is the surest guide to legislative intention. The meaning of the text may require consideration of the context, which includes the general purpose and policy of a provision, in particular the mischief it is seeking to remedy."

65. In the same case French CJ at [4] said:

> "The starting point in consideration of the first question is the ordinary and grammatical sense of the statutory words to be interpreted having regard to their context and the legislative purpose. That proposition accords with the approach to construction characterised by Gaudron J in *Corporate Affairs Commission (NSW) v Yuill* as:
>
> > 'dictated by elementary considerations of fairness, for, after all, those who are subject to the law's commands are entitled to conduct themselves on the basis that those commands have meaning and effect according to ordinary grammar and usage.'
>
> In so saying, it must be accepted that context and legislative purpose will cast light upon the sense in which the words of the statute are to be read. Context is here used in a wide sense referable, inter alia, to the existing state of the law and the mischief which the statute was intended to remedy."

66. In my view the ordinary and grammatical sense of the phrase 'nature of the employment concerned', where it appears in section 9B of the 1987 Act, is a reference to the employment concerned with the heart attack or stroke injury which is at issue. That is, it is a reference to the particular employment in which the injury was suffered, rather than to "the nature of the class or classification of employment" as that description is used in *Bourne* and *Connair*.

67. Section 9A(1) of the 1987 Act provides that compensation is not payable (other than in 'disease' injuries) "unless the employment concerned was a substantial contributing factor to the injury". In *Badawi v Nexon Asia Pacific Pty Limited t/as Commander Australia Pty Limited* [2009] NSWCA 324; 7 DDCR 75 Allsop P, Beazley and McColl JJA at [35] said:

> "In *Mercer*, Mason P noted, at [13] 745, that it was common ground between the parties that when s 9A spoke of '*the employment concerned'* being '*a substantial contributing factor to the injury'*, the legislature was dealing with what the worker in fact does in the employment, that is, the inquiry is as to what the worker was doing in his or her employment that caused or contributed to the '*injury'* as defined in s 4: see *Federal Broom Company Pty Limited v Semlitch* [1964] HCA 34; 110 CLR 626 at [4], 632-3 per Kitto J (Taylor and Owen JJ agreeing) and at [11] 641 per Windeyer J."

68. Their Honours at [48] discussed the propositions "distilled" from *Mercer v ANZ Banking Group* [2000] NSWCA 138; 48 NSWLR 740. Their Honours described one of these:

> "The phrase '*employment concerned'* in s 9A(1) bears the same meaning as '*employment'* in the phrase '*rising out of or in the course of employment'*: *Mercer* at [13] 745 and *Federal Broom* at 632-633. We agree."

69. In *Harrison v Melhem* [2008] NSWCA 67; 72 NSWLR 380 (*Harrison*) Mason P (Beazley and Giles JJA agreeing) at [131] said:

> "There is a principle of statutory interpretation supporting a presumption that a legislature intends to attach the same meaning to the same words when used in a subsequent statute in a similar connection (*Lennon v Gibson & Howes Ltd* [1919] AC 709 at 711-712; *Ramaciotti v Federal Commissioner of Taxation* [1920] HCA 70; (1920) 29 CLR 49 at 53; Pearce & Geddes, Statutory Interpretation in Australia 6th ed, Butterworths, Sydney, 2006 at §3.36)."

70. The nature of the tests in section 9A and section 9B is not the same. Section 9A involves a "causative element": *Badawi* at [80]. Section 9B involves an evaluation of risk, it does not involve a true test of causation. Be that as it may, sections 9A and 9B are both provisions in the same legislation which impose a statutory precondition for the payment of compensation. The statement in *Badawi* that the "employment concerned" refers to "what the worker in fact does" in the "employment that caused or contributed to the injury" is consistent with the view I have formed. The passage of *Harrison* quoted above is consistent with the phrase "employment concerned" having the same meaning in both section 9A and section 9B.

71. In *Cram Fluid Power Pty Ltd v Green* [2015] NSWCA 250 Gleeson JA (Beazley ACJ and Emmett JA agreeing) considered secondary materials, consistent with section 34(1)(a) of the *Interpretation Act* 1987, including the Second Reading speech, in construing the amending Act.

72. The Treasurer's Second Reading speech on 19 June 2012 included the following:

> "The proposed amendment to section 9B of the Workers Compensation Act will have the effect that worker heart attacks and strokes will not be covered by the scheme unless the nature of the employment concerned gives rise to a significantly greater risk of the worker suffering the injury than had the worker not been employed in employment of that nature. It is considered this is a fairer and more reasonable test for employers to meet than the current test of 'substantial contributing factor'."

73. The concept of a fairer and more reasonable test for employers to meet is consistent with the view I have formed regarding the ordinary and grammatical sense of the phrase. An employer would not be involved in meeting a test if the phrase referred to a class or classification of employment, rather than to the particular employment in which a worker suffered injury.

(ii) Application to the Deceased

74. Material put on by the respondent included the statement from Mr Wilkins. Mr Wilkins was engaged under contract by the respondent as a manager. He was responsible for managing the Water and Waste Water Technologies operation of the respondent. The deceased was one of his "direct reports". Mr Wilkins said of the deceased's duties:

> "11. As part of his duties Kamal had requirement to travel to many locations around the State to undertake projects and for business development/marketing. As part of managing his section he would determine when and where to travel to suit business and project requirements and then advise his General Manager of his intentions."

75. Mr Wilkins also stated:

> "14. NSW Water Solutions has a centralised business support group that makes the travel arrangements including, flights, hotels, and hire cars through service providers who are under contract to the NSW Government."

76. The respondent's material contains a Position Description of the deceased's job. It includes:

> "Manage and lead multi disciplinary teams in the development of the Section as a viable commercial enterprise to ensure delivery of a range of products and services to clients.
>
> Effectively market the activities of the Section, both nationally and internationally, to broaden its client base and to ensure its financial base as well as maintaining and developing key linkages with other areas of the Department.
>
> Maintain and raise the profile of the Department in the Water Industry and amongst the department's traditional and non-traditional clients."

77. The Position Description describes "Work Performed" by the principal engineer. It includes:

> "[N]ational consulting services in the water supply field and works as a joint partner with private sector firms within Australia.
>
> [A]dvice to Local Government within NSW on the most appropriate solutions for the provision of water infrastructure. This advice is quite often supported by professional services, leading through to the construction and operation of modern water supply systems including transport systems and treatment plants."

78. The document describes the principal engineer as undertaking duties including:

> "Managing relationships and liaison with clients and regulatory authorities to develop cost effective solutions within a Total Quality Management framework.
>
> Effective marketing and selling of the Section's services to ensure a consistent increase in unit revenue.
>
> The preparation of high quality fee proposals for professional services and presentation to clients."

79. The description of "Knowledge Skills and Experience" in the document included "Proven sales and marketing skills".

80. It is apparent from the above that the deceased's position had a significant commercial element.

81. The deceased was employed as a principal engineer. Clearly his duties involved technical expertise in the practice of his profession. It is apparent, on reference to the above passages from the Position Description of the deceased, and the statement of Mr Wilkins, that the nature of the employment included many other elements.

82. The deceased was to develop his section as a viable commercial enterprise, he was to market its activities both nationally and internationally, he was to manage its clients, he was to market and sell its services so as to increase revenue. It was the nature of the deceased's duties that he had significant responsibilities in managing and marketing his section. Proven sales and marketing skills were specific aspects of the required skills to carry out the duties of the position.

83. Mr Wilkins's statement indicates that the deceased's employment involved travel to many locations, both to manage projects and to engage in marketing and business development. The section had a centralised business support group to make its travel arrangements.

84. It is clear that the actual duties of the deceased involved business travel to locations away from home. Staying alone in such locations is an inherent part of such travel. Performing such duties was an inherent part of the employment of the deceased. It is also what he was doing at the time of his death.

85. If I am wrong in the construction I have reached regarding the phrase 'the nature of the employment concerned', I would in any event be satisfied that the "class or classification" of the deceased's employment (as that phrase is used in *Connair*) was such that one of its incidents was travel away from home, associated with staying alone in accommodation. The nature of the deceased's occupation was not simply carrying out the technical duties of an engineer in an office. It was the nature of the occupation that it involved regular travel (with overnight stays) both to manage sites and to further the commercial operations of the respondent.

The Nature of the Test in Section 9B

86. The applicant submitted that the test in section 9B was a relatively undemanding one. It is satisfied if the increase in risk is not insignificant. By reference to *Shaw* the test is only a little more demanding than one that the increase in risk be not far-fetched or fanciful. The test in *Turner* (applying the New Zealand legislation) is satisfied if there is a five per cent increase in the risk.

87. In *Turner* Ongley J at [61] said:

> "The OED contains a definition for 'significant' in relation to statistics as 'of an observed or calculated result, such as the difference between the means of two samples: having a low probability of occurrence if the null hypothesis is true; statistically significant, significant at some conventionally chosen level, freq. five per cent'. Section 33(2)(c) necessarily involves statistical comparisons and it is reasonable to consider that 'significantly' was used in the statistical sense."

88. There is substantial discussion in *Turner* going to the application of statistical variations between certain groups of workers and the general population. It is apparent that the reference to a risk of personal injury being "significantly greater" in section 33(2)(c) is in a context different to that in which the words "significantly greater risk" are used in section 9B of the 1987 Act.

89. Context is appropriately considered in dealing with questions of construction. There is some superficial similarity between section 33(2)(c) of the New Zealand legislation and section 9B of the 1987 Act. However the New Zealand legislation constitutes a different statutory scheme in a country other than Australia. The New Zealand authorities are of little assistance in construing section 9B.

90. Section 5B(1) of the *Civil Liability Act* provides:

> "5B 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."

91. In *Shaw* Macfarlan JA (Beazley and Tobias JJA agreeing) at [44] said:

> "In *Wyong Shire Council v Shirt*, Mason J referred to a risk 'which is not far-fetched or fanciful' as being 'real and therefore foreseeable' (at 48). The requirement in s 5B(1)(b) [of the *Civil Liability Act*] that the risk be 'not insignificant' imposes a more demanding standard but in my view not by very much."

92. In *Pender* Ward JA (Barrett JA agreeing) referred to this statutory test at [159]:

> "The Council complains that her Honour did not explain the basis for her conclusion that the risk of harm was 'not insignificant'; i.e., a risk of a higher probability than is indicated by the phrase 'not far fetched and fanciful' but not so high as might be indicated by a phrase such as 'a substantial risk', to adopt the language used in the Ipp Review of the Law of Negligence."

93. Section 5B(1)(b) of the *Civil Liability Act* uses the words "the risk was not insignificant". Section 9B of the 1987 Act uses the words "significantly greater risk". The words are not the same. One is expressed as a double negative, the other is not. Section 9B requires a comparison of the level of risk between "the employment concerned" and the risk if a worker was not employed in such employment. Section 5B(1)(b) does not require a comparative assessment.

94. The words are not used in "a similar connection". Section 5B(1)(b) deals with the level of risk needed to potentially attract liability at common law. Section 9B deals with liability under the statutory compensation scheme for heart attack or stroke injuries.

95. In my view the decisions raised in submissions, dealing with the *Civil Liability Act*, do not assist in construing section 9B. This is consistent with the passage from *Harrison* quoted at [69] above.

96. The arbitrator in *Veljanoski* expressed the view that the test in section 9B of the 1987 Act was "more onerous" than that in section 4(b) of the 1987 Act (see the discussion at [33] to [38] of that decision).

97. The 2012 amending Act amended the definition of 'injury' in section 4(b) of the 1987 Act to require that in 'disease' injuries employment be the 'main contributing factor' to the contraction or aggravation, etcetera of the disease. Section 9A ceased to have application to such injuries. Such injuries, where they involved 'heart attack injury' or 'stroke injury', were subject to the test in section 9B.

98. After relevant commencement of the 2012 amending Act, if a worker suffered an injury which was a 'heart attack injury' or a 'stroke injury', properly characterised as injury *simpliciter* pursuant to section 4(a) of the 1987 Act (as in *Zickar v MGH Plastic Industries Pty Ltd* [1996] HCA 31; (1996) 187 CLR 310) section 9A had continued application and additionally section 9B had to be satisfied.

99. Most heart attack and stroke injuries will fall within the definition in section 4(b) of the 1987 Act (the 'disease' provisions). For such injuries it is now necessary that the test of 'main contributing factor' be satisfied. Section 9A has ceased to have application to such injuries, but they are subject to section 9B.

100. *The Macquarie Dictionary*, Fifth Edition (2009) contains the following definition:

> "**significant** *adjective* 1. important; of consequence. 2. expressing a meaning; indicative. 3. having a special or covert meaning; suggestive. – *noun* 4. *Archaic* something significant; a sign."

101. The only component of this definition which could have application in the context of section 9B is the first, "important; of consequence".

102. In *Norrie v New South Wales Registrar of Births, Deaths and Marriages* [2013] NSWCA 145 at [84] to [85] Beazley ACJ (Preston CJ of LEC agreeing) said:

> "Where a word is not defined in legislation, recourse to dictionary definitions is an accepted technique in the task of statutory construction. As Lord Coleridge observed in *R v Peters* (1886) 16 QBD 636 at 641:
>
> > '... dictionaries are not to be taken as authoritative exponents of the meanings of words used in Acts of Parliament, but it is a well-known rule of courts of law that words should be taken to be used in the ordinary sense, and we are therefore sent for instruction to these books.'
>
> See also *Coleman v DPP* [2000] NSWSC 275; 49 NSWLR 371 at 373-5.
>
> However, as Dennis C Pearce & Robert S Geddes, *Statutory Interpretation in Australia*, 7th ed (2011) LexisNexis Butterworths noted, at [3.30], the use of a dictionary to enable the ordinary meaning of a word to be identified must not result in the words used in the statute being abandoned in favour of some other synonymous word or expression. Nor can the meaning of a word as a matter of ordinary English usage override the necessity to construe the statutory language in context."

103. The authors of Pearce & Geddes, *Statutory Interpretation in Australia*, 8th ed. (2014) describe references to the *Macquarie Dictionary* as "common in Australian cases". The authors at P 120 continue:

> "The use of a dictionary to assist in the understanding of words used in an Act must not, however, result in the words of the Act being abandoned in favour of synonymous expressions."

104. The relevant passage of the Second Reading speech is set out at [72] above. The Treasurer described the test being introduced by section 9B as "a fairer and more reasonable test for employers to meet than the current test of 'substantial contributing factor'."

105. Section 9B(1) does not require a significant risk. It requires a comparison of (1) the risk to which the nature of the employment concerned gives rise and (2) the risk had the worker not been employed in employment of that nature. It is necessary that the first of these be 'significantly greater' than the second, if compensation is to be payable.

106. The ordinary and grammatical sense of the words 'significantly greater' is that the first of the measures, in the preceding paragraph, be greater than the second in a way which is significant. The first of the dictionary definitions referred to at [100] above ("important; of consequence") is consistent with the ordinary meaning of the word 'significant'. It is consistent with the context in which the words are used, the test in section 9B replacing (for 'disease' injuries) the previously applicable test in section 9A.

Medical Evidence

107. Professor Raftos is a specialist in emergency medicine. His report dated 6 March 2015 was based on listed documents, including a statement of the applicant, the three documents referred to at [11](e) above, the death certificate, the autopsy report and the section 74 notice.

108. Professor Raftos referred to the post mortem report. He said the deceased had "died because of cardiac arrest in ventricular fibrillation which occurred as a result of acute coronary syndrome caused by occlusion of his left anterior descending coronary artery as a result of atherosclerosis".

109. Professor Raftos noted the deceased was found sitting on the floor next to the bed. There was vomitus on the floor. Professor Raftos said "this indicates that he had had symptoms, most probably chest pains and nausea, before the fatal cardiac arrest". He said the:

> "…only effective treatment for ventricular fibrillation is electrical defibrillation. Defibrillators are available in hospital Emergency Departments and Coronary Care Units and in all ambulances. If an individual suffers ventricular fibrillation and is defibrillated immediately, then the likelihood of neurologically-intact survival is greater than 85%. If an individual suffers ventricular fibrillation in the absence of a defibrillator, then the likelihood of neurologically-intact survival depends on the time to defibrillation and the provision of effective cardiopulmonary resuscitation (CPR) before defibrillation."

110. Professor Raftos said that the "paramedic ambulance response time for emergency calls to most addresses in urban Sydney is about five minutes". Professor Raftos said that, if the deceased had been at home on the night of his death, "he would, on the balance of probabilities, have alerted his wife to his symptoms and she would then have called the ambulance service". Professor Raftos identified the following "courses of events" thereafter:

    (a) The ambulance would have taken the deceased to hospital. Treatment may have prevented ventricular fibrillation occurring. Alternatively if it did occur, it could have been successfully treated with immediate defibrillation.

    (b) If ventricular fibrillation commenced in the presence of the ambulance officers they would have provided immediate defibrillation.

    (c) If ventricular defibrillation commenced before the ambulance officers arrived, the applicant would have provided CPR until their arrival and the ambulance officers would then have provided immediate defibrillation.

111. Professor Raftos concluded that if the deceased had been at home with the applicant on the night of his death, or in the presence of another adult in the motel room, he "would, on the balance of probabilities, have survived his acute coronary syndrome".

112. The applicant, in her undated statement attached to the Application, said:

> "Had Kamal been at home on 20 August I would have been able to get medical attention swiftly."

113. The applicant relies on a certificate in First Aid from the Unique College of Technology. It contains a "WorkCover Authority of New South Wales" approval number. It was issued to "Haridra S Fernando" (who I take to be the applicant). The course date was given as 26 September 2008. The certificate stated it had an expiry date of 28 September 2011. It said "For this certificate to remain current the CPR component must be re-assessed every 12 months".

114. The evidence does not suggest that the applicant renewed her certificate after its expiry date. There is no evidence that the applicant ever underwent the 12 month re-assessments in the CPR component, necessary to maintain the currency of the certificate. The applicant did not state that she had any proficiency in performing CPR or that she would have done so if necessary. In weighing the applicant's evidence on this issue, it is necessary to have regard to the capacity of the applicant to adduce such evidence (the rule in *Blatch v Archer*, discussed in *Cook's Construction Pty Ltd v Brown* [2004] NSWCA 105 per Hodgson JA at [42]). The evidence does not satisfy me that the applicant had the necessary skills such that she would have performed effective cardiopulmonary resuscitation on the deceased had he been at home on the night in question.

115. The respondent's solicitors qualified Dr Herman, a consultant cardiologist. Dr Herman described the deceased's injury as:

> "…acute anterior myocardial infarction with a subsequent cardiac arrest almost certainly secondary to ventricular fibrillation (onset of arrhythmia post myocardial infarction unknown)."

116. Dr Herman said the employment of the deceased "as a principal engineer of public works did not give rise to a significantly greater risk" of the deceased suffering a myocardial infarction. He agreed that "the presence of vomitus near the deceased suggests that he had been unwell prior to the cardiac arrest but the timing is again unknown". He said:

> "…the time between his myocardial infarction and the subsequent ventricular fibrillation cardiac arrest is unknown. It is however likely to have occurred within minutes rather than hours given that there were no macroscopic changes noted on the post-mortem examination of the heart muscle."

117. Dr Herman referred to various studies indicating that patients suffering sudden cardiac arrest have poor survival rates. Dr Herman concluded:

> "In summary therefore, Mr Fernando sustained an acute anterior myocardial infarction with an occluded anterior left descending artery and early (time unknown) arrhythmic cardiac arrest (ventricular fibrillation). He had not sought medical attention and had he done so, the results may have been different as postulated by Professor Raftos. However, the only facts which can be relied upon are the myocardial infarction and the subsequent cardiac arrest and what may or may not have occurred had he been at home is entirely speculative.
>
> Had the cardiac arrest occurred at home, his prognosis would, in all likelihood, have been poor in any event."

118. Professor Raftos's report of 22 July 2015 commented on the views of Dr Herman. He noted Dr Herman's opinion that there was insufficient time between the onset of chest pain associated with the myocardial infarction and the onset of ventricular fibrillation, for the deceased to have received appropriate treatment. Professor Raftos said the absence of visible changes on post-mortem examination of the heart was consistent with death occurring within 30 minutes of the myocardial infarction. The absence of such changes on post-mortem examination allowed "a time interval of up to 30 minutes between onset of chest pain and onset of ventricular fibrillation".

119. Professor Raftos said that ventricular fibrillation did not occur immediately after onset of the myocardial infarction; this is apparent from the fact that the deceased had gotten out of bed, was sitting on the floor and had vomited. Had the deceased been at home he would likely have alerted his wife when he had chest pain and she would probably have called an ambulance immediately. For urgent matters in Sydney ambulance response time is "generally about five minutes, and usually less than ten minutes". On this scenario, ambulance officers would probably:

> "…have been present within 15 to 20 minutes after the onset of Mr Fernando's chest pain and before the onset of ventricular fibrillation. If ventricular fibrillation had occurred in their presence, they would have immediately cardioverted Mr Fernando with a greater than 85% likelihood of success. He would have then been transported to a hospital where urgent treatment of his myocardial infarction would have resulted in a 30 day mortality of about 4.5%. He would, on the balance of probabilities, have survived."

120. Much of the medical evidence is uncontroversial. The deceased suffered from coronary atherosclerosis. He had ischaemic heart disease. This led to occlusion of his left anterior descending coronary artery and myocardial infarction. As a result the deceased went into ventricular fibrillation, resulting in cardiac arrest and death. The evidence does not suggest there is a causal relationship between the deceased's employment and the atherosclerosis or the myocardial infarction.

121. The deceased was found in the motel room. It is apparent that death did not occur immediately after the myocardial infarction, given where the deceased was found and the presence of vomitus on the floor. Having regard to the absence of visible macroscopic changes on the heart muscle at autopsy, there was a period, which is unknown but was up to 30 minutes, between the occurrence of the myocardial infarction and the deceased going into ventricular fibrillation which led to cardiac arrest.

<u>Does the Test Apply?</u>

122. The applicant made her claim on the respondent by letter dated 13 November 2014. The letter gave various formal details. It enclosed copies of the Notice Dispensing with Inquest and the Autopsy report. It described the deceased's visit to Ballina in the course of his employment. It said:

> "The deceased died of a heart attack between 11.45pm on 19 August and 8.00am on 20 August 2014 in his motel room.
>
> It would be our client's contention that the deceased was unable to seek help when he would have experienced symptoms as he was alone in his motel room. Had it

> happened at home, our client would obviously have sought emergency medical assistance."

123. The respondent's insurer responded in a section 74 notice dated 2 December 2014. It described the material reviewed and considered as the letter making the claim dated 13 November 2014, the Notice Dispensing with Inquest, the Autopsy report and the death certificate. It set out short reasons. These included the passage quoted at [7] above. The balance of the reasons referred to section 9B of the 1987 Act, and recited language consistent with the wording of section 9B. It did state:

> "It is considered that none of the information that has been submitted supports a causative link between the heart attack injury and ischaemic heart disease as being the direct cause of the death and the nature of the deceased's employment concerned as a Principal Engineer of Public Works giving rise to a significantly greater risk of the deceased suffering the injury had he not been employed in an employment of that nature."

124. Section 9B of the 1987 Act has application where a worker has suffered a 'heart attack injury' or a 'stroke injury'. The section operates where such an injury is established, in that it then precludes the payment of compensation unless its requirements have been satisfied. Application of the section presupposes the presence of an injury which is otherwise compensable.

125. What was being placed in issue in the passage quoted at [123] above is not free from doubt. It does not in a "concise and readily understandable statement" indicate that 'injury' within the meaning of section 4 of the 1987 Act was being placed in dispute (section 74(2) of the 1998 Act; *Mateus v Zodune Pty Limited t/as Tempo Cleaning Services* [2007] NSWWCCPD 227 at [44] and [45]). When the section 74 notice is read as a whole, its effect is not to dispute the occurrence of the alleged injury, but rather to rely on section 9B of the 1987 Act.

126. The Reply confirmed the matters in dispute were "as per dispute notice(s) attached to the Application".

127. At the arbitration hearing the applicant, through her counsel, made it clear that she approached the matter on the basis the only issue was section 9B of the 1987 Act. The matter proceeded in a way consistent with this. The section 74 notice, the Reply and the way in which the matter was conducted were consistent with acceptance by the parties that the only issue was whether section 9B precluded the payment of compensation.

128. The injury conceded by the respondent can only have been the injury asserted by the applicant in the correspondence dated 13 November 2014. That was injury because "emergency medical assistance" was not sought when the deceased "experienced symptoms". On the medical evidence, the onset of chest pain was consistent with the deceased suffering a myocardial infarction. Medically, what happened subsequently was the occurrence of ventricular fibrillation which led to cardiac arrest and death. The conceded injury can only have been the occurrence of ventricular fibrillation and the resultant cardiac arrest.

129. There was also no issue raised between the parties as regards whether the events leading to the death of the deceased occurred in the course of his employment.

130. The words "an injury" where they first occur in section 9B(1) must refer to an injury asserted by a worker, in respect of which compensation is otherwise payable, subject to satisfaction

of the test in section 9B(1). The test in section 9B(1) relevantly applies if that injury is a 'heart attack injury'. Whether the injury is a 'heart attack injury' is governed by the definition in section 9B(2).

131. On the applicant's case, the injury consists of ventricular fibrillation and/or consequential physical harm or damage. The 'consequential physical harm or damage' was identified in submissions as ventricular fibrillation and cardiac arrest. This is sufficient that the injury falls within the definition of a 'heart attack injury' (sub-clauses (e) and (n) of section 9B(2)). It may well also fall within other parts of the definition.

Application of the Test

132. The question is whether the nature of the employment concerned gave rise to a significantly greater risk of ventricular fibrillation and cardiac arrest occurring than had the deceased not been employed in employment of that nature. The phrase 'significantly greater' should be construed in a manner consistent with the discussion at [100] to [106] above.

133. The relevant aspect of the deceased's employment was that, when he suffered the myocardial infarction, he was alone in the motel room, as part of his business travels. He would otherwise have been in his home at Lidcombe with the applicant.

134. The document from Dayan (Gunasekera) headed "Highly Confidential" (part of exhibit '1') said that the applicant was "always alert" because of the deceased's sleep apnoea and would wake him at midnight if he was not breathing. The applicant stated that if the deceased had been at home she "would have been able to get medical attention swiftly".

135. Death was not instantaneous with the occurrence of the myocardial infarction. Professor Raftos considered that how the deceased was found (sitting by the side of his bed) together with the presence of vomitus on the floor, indicated the deceased "had symptoms, most probably chest pain and nausea, before the fatal cardiac arrest". Professor Raftos described these symptoms as the "onset of symptoms of myocardial infarction". Dr Herman agreed "that the presence of vomitus near the deceased suggests that he had been unwell prior to the cardiac arrest but the timing is again unknown".

136. I accept that the deceased probably had chest pain and nausea with the onset of the myocardial infarction. He vomited. I accept that, if the deceased had been at home with the applicant, she would quickly have been aware of his plight and would have taken prompt steps to summons an ambulance as a matter of urgency. For reasons given at [114] above I do not accept that the applicant would have carried out cardiopulmonary resuscitation prior to the attendance of an ambulance at the scene.

137. The deceased ultimately died from cardiac arrest. Dr Herman described the cardiac arrest as "almost certainly secondary to ventricular fibrillation".

138. Professor Raftos said the ambulance response time for urgent matters in Sydney is "generally about five minutes, and usually less than 10 minutes". Dr Herman did not comment on ambulance response times. Professor Raftos, at the time he reported, held current appointments as a senior specialist in Emergency Medicine at three hospitals, St Vincent's Hospital, Sutherland Hospital and Sydney Hospital. He was, at the time, Conjoint Associate Professor in the Faculty of Medicine at the University of New South Wales, where he had been lecturing since 1984. He has been a Fellow of the Australasian College for Emergency Medicine since 1983. He was well placed to comment on matters relevant to emergency medicine. I accept his evidence going to ambulance response times.

139. Professor Raftos said that, based on the above response times, "ambulance officers with a defibrillator would have been present within 15 to 20 minutes after the onset of Mr Fernando's chest pain and before the onset of ventricular fibrillation". He said, and I accept, that defibrillators are available in all ambulances.

140. Thus in the opinion of Professor Raftos, it is probable that if the deceased had experienced the myocardial infarction in his home, ambulance officers would have been present before he went into ventricular fibrillation. Professor Raftos described "electrical defibrillation" as the "only effective treatment for ventricular fibrillation". Dr Herman described acute defibrillation as "the only treatment option for ventricular fibrillation".

141. It is the opinion of Professor Raftos that if the deceased went into ventricular fibrillation after the arrival of the ambulance officers, they "would have then provided immediate defibrillation". Professor Raftos stated that "[i]f an individual suffers ventricular fibrillation and is defibrillated immediately, then the likelihood of neurologically intact survival is greater than 85%".

142. It follows from the above analysis by Professor Raftos that if the deceased had experienced his myocardial infarction at home, he would have had an 85 per cent chance of survival. If the deceased went into ventricular fibrillation ambulance officers would probably have been present and would have defibrillated him immediately. Professor Raftos said that if the deceased, when he went into ventricular fibrillation, had been "immediately cardioverted" there would have been a "greater than 85% likelihood of success".

143. Dr Herman accepts some of Professor Raftos's analysis. He said of the deceased:

> "He had not sought medical attention and had he done so, the results may have been different as postulated by Professor Raftos."

144. On Professor Raftos's analysis, the ventricular fibrillation may well have been successfully treated with electrical defibrillation before the occurrence of cardiac arrest. Commenting on patients who have progressed to cardiac arrest, Dr Herman said:

> "It is certainly true that patients with witnessed ventricular fibrillation cardiac arrests have a significantly greater likelihood of surviving to post hospital discharge (than those with other rhythm disturbances) but the survival rates at best remain poor at approximately 34% in some series."

145. Dr Herman said that the time between "myocardial infarction and the subsequent ventricular fibrillation cardiac arrest is unknown". He said the period was likely to be "minutes rather than hours" given the lack of macroscopic changes to the heart muscle on post-mortem examination. Professor Raftos refined this period to one of up to 30 minutes, before such changes would be present at post-mortem, and explained the medical process through which the changes occur.

146. Dr Herman also commented that if the deceased had been feeling "progressively unwell" he may have "alerted hotel staff if there had been sufficient time". The time of night when the myocardial infarction and consequent ventricular fibrillation and cardiac arrest occurred is unknown. Whether there would have been night staff to respond to such an alert, at whatever time the deceased was unwell, is unknown on the evidence. It is also unknown whether the state of the deceased's distress at the time was such that he would or would not have been capable of seeking to raise motel staff.

147. Dr Herman also commented that if the deceased:

> "…had been at home at the time of his cardiac arrest, the likelihood of a neurologically intact discharge from hospital would be far less than 50%."

148. Dr Herman said it was:

> "…unlikely that Mr Fernando's death would have been avoided had he been at home at the time of the cardiac arrest requiring cardiopulmonary resuscitation (from his wife who possible has no CPR experience)".

149. The one year survival rates of people who have gone into cardiac arrest do not much assist in applying the test in section 9B. Dr Herman did not specifically challenge the views of Professor Raftos described at [138] to [142] above. I accept the opinion of Professor Raftos on these matters. He is eminently qualified with decades of experience in the field of emergency medicine.

150. Dr Herman described the views of Professor Raftos, going to the prospects of the deceased being successfully treated if medical assistance were summoned, as "speculative".

151. What the test in section 9B requires is a comparison of risks as described at [132] and [133] above. Some level of speculation is inherent in comparing the respective risks as required by the section. The section does not require proof on the probabilities that the outcome would have been different.

152. If the deceased was not employed in the relevant employment, the risk of the relevant heart attack injury occurring would, on the probabilities, have represented the risk of the myocardial infarction leading to ventricular fibrillation and then to cardiac arrest, in circumstances where ambulance officers, with the equipment to administer defibrillation, were present from about 15 to 20 minutes after the onset of the myocardial infarction.

153. On the evidence of Dr Raftos, which I have accepted, the ambulance officers would probably have been present to tend to the deceased from before the onset of ventricular fibrillation. On the evidence of Dr Raftos, if the deceased had then gone into ventricular fibrillation the likelihood of it being treated successfully with a defibrillator would have been greater than 85 per cent.

154. The risk of the deceased suffering the relevant heart attack injury, in the employment concerned, was the risk of the myocardial infarction leading to ventricular fibrillation, to which the cardiac arrest was secondary, in the absence of any medical assistance. It is common ground between Dr Herman and Dr Raftos that the only effective treatment for ventricular fibrillation is the administration of defibrillation.

155. It follows that if the deceased had not been in the relevant employment, and had medical assistance available to him at home from ambulance officers, the risk of him going into ventricular fibrillation, and thence to cardiac arrest which was secondary to ventricular fibrillation, would have been much less. Professor Raftos said in those circumstances there would have been an 85 per cent chance of the ventricular fibrillation being successfully treated. Having regard to a comparison of these risks, I am satisfied that the test in section 9B is satisfied. The employment concerned gave rise to a significantly greater risk of the relevant injury. There are no other matters in contest between the parties.

156. There is a finding that the deceased died on or about 20 August 2014 as a result of employment injury suffered by him in the course of his employment with the respondent. There is a finding that the provisions of section 9B of the 1987 Act are satisfied. As at the date of death of the deceased the applicant was partially dependent for support on the deceased. There were no other persons dependent for support on the deceased as at the date of his death.

157. The respondent is to pay the sum of $510,800 to the applicant, being the lump sum death benefit payable pursuant to section 25(1)(a) of the 1987 Act.