LOCAL COURT of NEW SOUTH WALES

Coronial Jurisdiction

Inquest:	**Inquest into the death of Marcus WILSON**
Hearing dates:	20-22 August 2012
Date of findings:	4 October 2012
Place of findings:	State Coroner's Court, Glebe
Coroner:	Deputy State Coroner H.C.B. Dillon
Findings:	I find that Marcus Wilson died on 21 November 2009 at Nepean Hospital from complications arising from hyperthermia, including total organ failure, rhabdomyolysis and coagulopathy which arose from working in very high temperatures as a roofing insulator without adequate hydration.
Recommendations:	(i.) I recommend that the WorkCover Authority of NSW ("the WorkCover Authority") consider undertaking publicity campaigns from time to time directed to industry bodies, industry training organisations, businesses and individuals emphasising the risks of heat stress and heat stroke, and the importance of regular consumption of water instead of, or in addition to, any other drinks, as a primary means of preventing heat stress or heat stroke. The publicity materials should include specific reference to the danger of hydrating solely with soft drinks and caffeinated drinks.

(ii.) I recommend that the Australian Construction Training Service ("ACTS") consider conducting random audits of registered trainers and training organisations using its materials for certificate courses to assess that such training is being delivered appropriately and effectively.

(iii.) I recommend that the ACTS consider requiring registered trainers and training organisations to certify that courses they conduct have included a practical component and assessment in accordance with an appropriate standard set by the ACTS. The trainers and training organisations ought be required to describe the activities or competencies and method of assessment applied.

(iv.) I recommend that the ACTS consider requiring that, in respect of individual participants in their courses, registered trainers and training organisations certify they have either passed or not passed the practical component and assessment.

(v.) I recommend that the ACTS amend its insulation industry training materials to include a specific reference to the topic of heat exhaustion and heat stroke and the need for regular hydration with water. The materials should include specific reference to the danger of hydrating with soft drinks and caffeinated drinks.

(vi.) I recommend that the ACTS consider having its insulation industry materials reviewed by a specialist adult educationist to ensure that they meet "best practice" educational standards and consider modifying the course design in accordance with the findings of such a specialist.

(vii.) I recommend that ComSec Global Training Pty Ltd ("ComSec") modify its insulation industry training materials to include a specific reference to the topic of heat exhaustion and heat stroke and the need for regular hydration with water. The materials should include specific reference to the danger of hydrating with soft drinks and

caffeinated drinks.

(viii.) I recommend that Standards Australia consider amending the Australian Standard AS3999-1992 to include a reference to managing hot conditions.

(ix.) I recommend to the Commonwealth Minister for Finance that guidelines for Australian Government programs include a standard reference to the requirement for compliance with State and Federal occupational health and safety legislation insofar as they are relevant to particular programs.

File numbers: 3374/09

Representation:

Ms P Lowson (Counsel Assisting) instructed by Ms L Darcy (Crown Solicitor's Office)

Mr W de Mars (Legal Aid Commission) for Jessica Wilson (Next of kin)

Mr I Latham instructed by Ms N. Markovski (People's Solicitors) representing ComSec

Mr P Ginters instructed by WorkCover Authority

Mr D Accoto instructed by Mr W. Anderson (Anderson Boemi) representing Mr Ryan Glover

REASONS FOR DECISION

Introduction

1. Marcus Wilson died on 21 November 2009 at Nepean Hospital from the complications arising from hyperthermia, including total organ failure, rhabdomyolysis or muscle meltdown, and coagulopathy, a blood disorder that prevents clotting of blood.

2. Mr Wilson developed hyperthermia after performing work installing top-up cellulose insulation in a roof space in a house in St Clair in western Sydney. During the time he was working in the roof, the temperature recorded by the Bureau of Meteorology in Penrith rose rapidly from about 36^{o} to more than 40^{o} C. The temperature in the roof space, even after the removal of roof tiles, would have been degrees higher. Mr Collin Cini, who had performed this work for approximately six weeks, said that the roof space was the hottest that he had experienced.

3. The shock of Mr Wilson's death and the sense of grief and loss remain for his sister Jessica Wilson, his close friend Calum McLean and his friends and family. He was only 19 when he died. Everyone who knew him well liked him and enjoyed his company. He was generous to his friends and looked after his mates. The Wilson siblings have had a hard start to life in some respects but Marcus Wilson was a hard worker who wanted to make something of himself. This is amply demonstrated by the fact that he was prepared to work on such a day in such conditions without shirking or slackening. Unfortunately, those conditions were the death of him. This has had a shattering effect on Calum McLean and Jessica and those close to Marcus.

The purpose of this inquest

4. An inquest is an independent judicial inquiry into the cause and circumstances of a person's sudden and unexpected death. Coroners and their teams are independent. They explore the available evidence and seek to draw conclusions based on that evidence. They may also seek to draw appropriate lessons from the misfortunes that have resulted in the deaths of fellow members of the community.

5. One of the marks of a civilised, peaceful society ruled by law is that every person's right to life is respected. One of the ways such a society shows that respect is by requiring public officials to investigate and, if possible, explain deaths the causes of which, or the circumstances surrounding which, are not obvious or which give rise to concern, fear or suspicion. The community and the state have an interest in finding an explanation for the sudden deaths of every person who dies within their jurisdiction. In our society, a coronial inquest is one method of conducting such investigations.

6. An inquest is not a trial. Nor is it a wide-ranging Royal Commission. Contrary to media reports, this inquest is not an investigation of the Australian Government's Home Insulation Program although that is part of the background against which this inquest takes place. Because of the publicity given to that program and this inquest's slight connection with it, I will touch on it very briefly.

7. The Home Insulation Program had two broad objectives: The first was to protect Australian construction workers from the full impact of the global financial crisis which had seen an

extraordinary collapse in the economies of the United States and Europe in 2008. The construction industry is always exceptionally vulnerable to recession. The Home Insulation Program was part of a $42 billion stimulus package designed to support domestic employment and shield the Austalian economy from the financial collapses that had decimated employment in the United States and Europe. The secondary objective was to reduce greenhouse gas emissions by making Australian houses more energy-efficient. While the Federal Government was heavily criticised for aspects of the program, and admitted flaws in it, it did not carry out the program directly. It created opportunities for companies such as Pride Building N.S.W. Pty Ltd ("Pride") to generate jobs for young people like Marcus Wilson.

8. The Home Insulation program has been the subject of a number of reviews and investigations by the Department of Prime Minister and Cabinet, the Insulation Advisory Panel, the Senate Standing Committee on Environment, Communications and the Arts, and the Commonwealth Auditor-General. An inquest that sought to explore the program in detail would merely be replicating previous inquiries. The program has also been the subject of a highly charged political debate which it would be inappropriate for a member of the judiciary to enter.

9. The proper focus of this inquest therefore, is not on a broad economic and political debate but on a young man who met his sudden and tragic death on a very hot day in November 2009.

The issues

10. A coroner's primary job is to seek answers to five questions: Who died? When did they die? Where did they die? What was the physical cause of death? How did they die? To put that another way, what were the circumstances or manner of death?

11. In this case, the real issues concern the cause and manner of Marcus Wilson's death. In dealing with them this inquest has considered:

    - The events of 20 November 2009
    - Workplace procedures and culture at Pride concerning roof insulation
    - Training of roof insulators working for Pride
    - Marcus Wilson's personal circumstances, especially his diet and fitness for the work
    - The factors that combined to cause or contribute to causing Mr Wilson's death
    - Lessons to be learned from this incident.

The events of 20 November 2009

12. Marcus Wilson was not employed by or contracted to Pride to do roof insulation work. His friend Calum McLean did not want to work that day and it was arranged that Mr Wilson would stand in for him to assist Mr Collin Cini, a sub-contractor working for Pride. There

is inconsistent evidence about who instigated this arrangement but it is of no consequence. Mr Cini had been given two jobs and Mr Wilson was to be paid for his work by Mr McLean.

13. The arrangement for Mr Wilson to perform the work was not made known to Mr Ryan Glover, the managing director of Pride, nor anyone else in Pride management. They were unaware that Mr Wilson was going to perform work on that day.

14. Mr Wilson had received some insulation training at a TAFE College but had little experience in the workforce. He was certainly not acclimatised to working in very hot roof spaces.

15. The first job was at Wyoming. Mr Cini and Mr Wilson arrived at about 7am. They had to wait for about 45 minutes before being let in. According to Mr Cini, they spent about 15-20 minutes topping up the insulation in the roof, spoke to the owner for about half an hour and drove off to the next job in St Clair. On the way to the house they stopped for lunch and to make a telephone call to Pride. Marcus Wilson ate a kebab and drank Coca-Cola.

16. They arrived at the St Clair house at about 11.30am. The temperature in Penrith at that time was recorded by the Bureau of Meteorology as 36.7^{o}C, an unusually high reading for November in Sydney. Mr Cini and Mr Wilson were on the site until about 1.20pm. At 1.30pm the Bureau of Meteorology recorded a temperature in Penrith of 42.1^{o}C. Of course, the temperature in the sun and in the roof would have been considerably higher.

17. Mr Cini removed a number of tiles to permit ventilation of the roof space. He and Mr Wilson took 10 bags of insulation, each weighing 15-20 kgs, up a ladder into the roof and probably spent over an hour topping up old insulation. . Mr Cini observed that Mr Wilson appeared to be hot and was apparently struggling somewhat as they worked. Mr Cini suggested to Mr Wilson that if he got too hot he should leave the roof for a break. Mr Wilson did so once or possibly twice. At some point the owner of the house gave him a Coca-Cola to drink. Mr Cini was unaware of Mr Wilson taking any other fluids.

18. When Mr Wilson finished his section of roof, he offered to help Mr Cini. When both had finished, Mr Cini asked Mr Wilson to leave the roof and start sweeping and tidying up the area at ground level while he finished the paperwork for the job.

19. While he was doing so, Mr Cini noticed that Mr Wilson was "talking to himself" and appeared upset or agitated. He was red in the face. Mr Cini told him to put the manhole cover back, to wash a cut he had sustained to his hand and then to go to the truck and sit in the air-conditioned cabin and wait for him. With the benefit of hindsight it can be seen that Marcus Wilson was displaying warning signs that he was suffering from serious heat stress.

20. When Mr Cini returned to the truck, Mr Wilson had disappeared. The truck door was open, Mr Wilson's bag was in the cabin but where Mr Wilson had gone Mr Cini had no idea. He thought that Mr Wilson was annoyed about working in the heat and had "done his nana and taken off". He drove around the area slowly looking for Mr Wilson before coming across a group of people on Mamre Rd. On his approach, he found that they were surrounding Marcus Wilson who had collapsed. Before doing so, witnesses seen him running about 500 metres from the property.

21. An ambulance was called and Mr Wilson was transported to Nepean Hospital where he died at about 9pm the following night.

Workplace procedures and culture at Pride concerning safety

22. Although Pride did not train or employ Mr Wilson, he was performing work from which it ultimately profited and was indirectly subject to its workplace practices and culture. For this reason it is important to examine some aspects of both.

23. In guidelines introduced on 1 December 2009 by the federal government, participation in the insulation scheme was expressly made conditional upon compliance with occupational health and safety laws. Pride, however, had always been required to comply with NSW occupational health and safety laws regardless of whether it was participating in the scheme.

24. Pride introduced a documented risk assessment process only after it became mandatory to do so, namely from 1 December 2009. Pride (and other installers) had, however, been sent regular advices from the Commonwealth Department of Environment, Water, Heritage and the Arts, including a specific warning in October 2009 about heat stress. Insulation Advices also made frequent references to Occupational Health and Safety Acts, Regulations, Codes of Practice and Australian Standards and their potential applicability to installers.

25. It is against that background that compelling evidence given by Mr Cini that Pride, through its managing director Mr Ryan Glover, was a very demanding employer must be considered. Mr Cini gave evidence that on a number of occasions he was told by Mr Glover "If you don't do the job, you don't have a job". Long hours or other arduous conditions appeared to make little difference to Mr Glover's attitude in this respect.

26. This claim was corroborated by the evidence of Mr Alan Lawson who worked on quality control as a sub-contractor for Pride. He agreed that this had been Mr Glover's general attitude. He said that he had passed on his experience from working in the roofing trade to others at Pride including a rule of thumb that they should not work in temperatures higher than 32^{o}C. He conceded, however, that the company had no such rule or practice and that Mr Glover expected jobs to be completed even in hot weather.

27. In fairness to Mr Glover, however, it should be noted that Mr Cini gave evidence that he had been told by Mr Glover the night before Mr Wilson and he worked that it would be hot during that day but that there were only two jobs to be done and that he should finish early.

28. Mr Glover did not give evidence at the inquest but, when interviewed by the WorkCover Authority, asserted that sub-contractors were able to work their own hours. He also claimed that the company had a rule that work should stop when the temperature reached 38^{o}C. Mr Cini and Mr Lawson were unaware of any such rule or guideline. There is no evidence of any such rule or practice to be found in the company's documents. It is contradicted by the fact that Mr Glover did not call off work on 20 November but simply told Mr Cini to get the work done quickly.

29. Mr Glover also claimed in his record of interview that Pride constantly warned the sub-contractors about the need to take rest breaks, drink water and to stop work if they were too hot. This was contradicted by the evidence of Mr Cini, Mr McLean and Mr Lawson. If there was, indeed, any such conversation within the group working on insulation for Pride, it appears to have been, at best, informal and infrequent.

30. Mr Glover sought to the convey the impression that Mr Lawson was the day-to-day supervisor of the sub-contractors and was largely responsible for safety training. Again, this was contradicted by Mr Lawson's evidence as well as that of Mr Cini and Mr McLean.

Mr Cini gave telling evidence that when he started work for Pride he received no induction, no insulation training and no occupational health and safety briefing, formal or informal, until he was actually on the job working in Ulladulla. Mr Lawson's evidence revealed that most of the time he worked for Pride he was on the road inspecting work that had already been done. In short, he was involved in quality control and dealing with customer complaints, not supervising or training sub-contractors many of whom, according to Mr Cini, were backpackers.

31. It is self-evident that contractors in Mr Cini's position are much more vulnerable to effective dismissal than a permanent employee. They are therefore likely to be much more amenable to pressure than permanent employees may be. Mr Cini said that he was unaware of Mr Lawson's 32°C rule of thumb. Even if he had been, he knew that this was not the way Mr Glover saw things and that his position would be jeopardised if he applied it unilaterally.

32. The lack of any standard procedures for ensuring mindfulness of safety on very hot days (an obvious issue for insulators working in Australia) exemplified Pride's casual approach to serious health and safety issues. Multiple sources for developing appropriate ways of managing the risk of heat stress were available to Pride. They included the WorkCover Codes of Practice for working in hot environments and Safe Work Method Statements available from groups such as Safety Culture. Mr Lawson's advice could have been sought and incorporated in a set of formal procedures and guidelines.

33. As he indicated in a record of interview with WorkCover, however, Mr Glover held the erroneous view that once the contractors left the Pride depot, the company's obligations to those workers were reduced virtually to zero. The NSW *Occupational Health and Safety Act 2000,* however, imposed an obligation on Pride (and all employers) to take reasonable steps to ensure that no one was exposed to risks to health and safety arising from the employer's project at a worksite.[1] Contractors and sub-contractors were entitled to that protection. The obvious inference is that Pride was concerned more with profit than with the health and safety of its contractors.

Training of Pride's roof insulators

34. A second example of the scant attention paid by Pride to workplace health and safety was the almost derisory attempt it made to train contractors in relation to those issues. The evidence showed that Pride docked $500 from each contractor for safety training which was only partially provided. According to Mr Cini, the course was meant to run for two days but in fact lasted only a few hours on the first day. Mr McLean gave evidence that the training consisted in a number of Powerpoint slides being projected at the end of which the group was presented with a test sheet of 36 questions. The answers to the test were projected on the screen and the contractors copied them into the test sheet which was then handed in. Mr McLean confirmed that the "course" lasted less than half a day.

35. One of the given reasons for the curtailing of the training was that the members of the group had had at least some experience of insulating and it was thought unnecessary to cover basic issues to do with that. That may have applied to some sub-contractors but Mr Cini's and Mr McLean's evidence suggests that the workforce was largely casual and unskilled in this particular trade.

[1] See s 8(2) Occupational Health and Safety Act 2000.

36. A more likely reason was that the contractors were not being paid while they attended the course. They were effectively losing money both directly by being docked for the cost of the course and indirectly by being kept from working. They were impatient to get back to work and placed pressure on the trainer to shorten his presentation. Evidence was given that Mr Glover also showed little respect for the process and sought to hurry the presenter. It is difficult to blame the ComSec presenter for doing what his clients wanted him to do, given the climate of impatience and derision for the training that Mr Glover and others engendered.

37. That said, training of this nature – heavy on words and light on practice – is well-known to be the least effective method of providing skills training. It is generally accepted in educational circles that students retain only about five per cent of what is conveyed in lectures unless the lecture is reinforced by other more effective teaching methods.[2]

38. Secondly, this type of training does not recognise that different people learn best in different ways. Many people learn best by on-the-job training in which they can have skills demonstrated to them and then apply those skills. It is self-evident that tradespeople who enjoy working with their hands and engaging in physical tasks will generally learn more by being engaged in practical learning than by being shown Powerpoint slides and asked to fill in a form by copying answers given to them.

39. Even had the trainer been allowed to deliver the full presentation in a pedagogically effective manner, it is unlikely that there would have been much, if any, attention paid to the risks of heat stress because death or serious illness from it is rare.

40. Finally, the cursory attention paid by Pride to safety issues demonstrates that in providing training at all it was primarily interested in formal compliance with a term of the contract it had with the Commonwealth government rather than with the safety of its contractors. Attention was not paid to the effectiveness of the training nor was the training reinforced in any way by the development of formal safety procedures, documents or supervision of contractors to ensure that they worked safely and mitigated risks.

41. Given that Pride's management placed so little practical emphasis on safety, anyone working for it (directly or indirectly) was potentially placed at risk.

Marcus Wilson's personal circumstances and fitness for the work

42. As noted above, Marcus Wilson had had some training at a TAFE College in insulation. The work is not highly skilled but is arduous at the best of times. Insulators must work in cramped spaces, lift heavy bags of material into roof cavities and on hot days are exposed to high temperatures. Despite the fact that he was not particularly large, Mr Wilson appears to have been quite strong. Certainly the work itself was not beyond his capacity. And as we have previously noted, he was also a very determined worker.

43. Like those of many teenagers, however, his diet was not very healthy. In particular, he did not like to drink water but preferred to drink soft drinks, especially Coca-Cola. Mr Wilson drank Coca-Cola on the day he was working with Mr Cini and was given a can of Coke by

[2] See, for example, Prince, M "Does Active Learning Work? A review of the research." *J of Engineering Education* 93,No 3 (2004): 223-231

the owner of the house at St Clair that morning. Cola drinks contain caffeine and most contain sugar.

44. Professor Gordian Fulde, an emergency specialist, gave evidence that caffeine is a diuretic. Drinking cola exclusively leads to a net loss of fluids. Sugar in drinks can also lead to dehydration if other forms of fluid are not taken as well. Marcus Wilson's habit of drinking Coca-Cola therefore made him vulnerable to dehydration and hyperthermia in the very high temperatures he experienced on 20 November 2009. The exertion of carrying bags weighing 15-20 kgs up ladders and then shifting them around the roof space would have caused him to lose fluids. Attempting to rehydrate by drinking Coca-Cola would have had a counterproductive effect but he was clearly unaware of this.

45. Some evidence suggested that Mr Wilson may have taken steroids to build himself up. It is impossible to say, however, whether he had done so shortly before his death. Professor Fulde's research on the question whether there is an association between steroid use and rhabdomyolysis was inconclusive. He was unaware of any specific cases and commented that while steroid use is common, rhabdomyolysis is not. If Mr Wilson had used steroids around about 20 November 2009, which is a matter of speculation only, I am not persuaded that this had anything to do with his death.

46. Medical evidence was given that acclimatisation to high temperatures takes a number of days. Mr Wilson's body had certainly not adjusted to the kinds of temperatures he experienced on this day.

A combination of factors resulted in Mr Wilson's death

47. There was no single cause of Mr Wilson's death. A number of factors combined. First, he was at work for some time, almost certainly more than an hour, in a very hot environment.

48. Second, Pride had no meaningful safety policy concerning such work. It had no guidelines or rules of thumb for ensuring that work stopped when the temperature in the roof spaces being insulated reached a certain point. It had no policy for ensuring that contractors took rest breaks and were adequately hydrated when working in roof spaces. It did not bring the risk of heat stroke to the attention of its contractors nor prepare them to recognise the signs of onset of heat stroke. It did not prepare them to deal with heat stroke if a worker was affected by it. It did not supervise insulators in the field. It did not provide insulators with any means of measuring the temperature in roof spaces.

49. Third, death and serious injury due to heat stroke or heat stress are, fortunately, rare. It is probably for this reason, therefore, that, despite the warning given in October 2009 concerning heat stress, Pride management and contractors appear to have given it little, if any, thought before Marcus Wilson's sudden death.

50. Fourth, Pride's management, especially Mr Glover, placed high emphasis on getting the work done and used the threat of termination of contracts to ensure that it was. Occupational health and safety issues were, at best, a secondary consideration for Pride. Insofar as they were considered, the concern at Pride was with formal compliance rather than with actual reduction of risk to workers.

51. Fifth, Mr Cini and Mr Wilson ended up at St Clair later than they may have originally anticipated due to a number of delays on the way. They had had to wait for the owner at

the first house. They lingered chatting to her for a little time. They stopped for lunch on the way to the house at St Clair. How much difference these delays made is very difficult to say – perhaps very little – but it is reasonable to factor them in as the temperature rose by about four degrees to above 40 ^{o}C while they worked.

52. Finally, Mr Wilson, unknown to himself, to Mr Cini and to Pride, was vulnerable to heat stroke both because he was not acclimatised to very high temperatures and because he preferred to drink Coca-Cola rather than adding water to his fluid intake.

What can be learned from this incident?

53. A number of lessons can be drawn from Marcus Wilson's death.

54. The first and most obvious is that it is dangerous for people to work in very high temperatures without first being acclimatised to them and, especially, without adequate regular appropriate hydration and rest breaks.

55. Second, any employer undertaking works in high temperatures must take reasonable and appropriate steps to assess and plan for the potential risks to the health and safety of anyone present on the worksite and, having done so, must take reasonable and appropriate steps to obviate those risks. If they do not have the in-house experience and capacity to undertake those assessments and make the necessary plans, they should seek advice from those who have.

56. Third, greatest attention should be given to the most serious risks, even if they come to fruition rarely. In this case it would have been common sense to anticipate that insulators working in temperatures of over 40^{o}C could suffer heat stress and therefore to ensure those risks were planned for and mitigated with specific measures.

57. Fourth, employers must ensure that all employees and contractors engaged in works on its worksites receive appropriate safety induction and, if necessary, occupational health and safety training before allowing them to work on the site.

58. Fifth, appropriate induction and occupational health and safety training is not a "tick-the-box" exercise in mere legal compliance. It is intended to raise the consciousness of workers and supervisors of risk and risk-management on the sites at which they are working. It is a management responsibility to ensure that workers and supervisors lower down the chain develop that state of mindfulness and maintain it at all times. Compliance with occupational health and safety laws should not be about avoiding penalties but about saving lives and preventing injuries.

59. Sixth, training should be tailored to the practical needs of the workers receiving it and designed with the learning styles of that group in mind. Training for tradespeople ought generally be "hands-on" practical training in which the students learn by watching demonstrations, receiving instruction and, most of all, by practising skills under expert supervision. Regular reinforcement of safety lessons is necessary to maintain consciousness of risk and to reduce lapses.

60. Seventh, employers who emphasise profit and "getting the job done" to the detriment of the safety of its workforce will only avoid serious accidents and incidents by good luck. They are accidents waiting to happen.

61. Eighth, it is dangerous for workers, supervisors and managers to assume that soft drinks provide adequate hydration in high temperatures.

Conclusion

62. It is a genuine tragedy that, through no fault of his own, a hard-working, good-hearted young man lost his life in this way. The sadness and frustration of his friends and family was obvious at this inquest. While Pride was not directly responsible for Mr Wilson's death, its casual approach to health and safety issues contributed significantly to him being placed in harm's way.

63. In her closing address, Counsel Assisting, Ms Lowson, noted that Mr Glover and Pride had shown no remorse or sympathy for Mr Wilson during the inquest. No doubt that approach was motivated by a fear of making admissions that might be used against them in another forum. In my view, however, it was an unfortunate position to have adopted and did them no credit. Even more unfortunate was the implication in submissions made for them by their legal representatives that Marcus Wilson's death was his own fault. I reject any such suggestion.

64. Lessons ought be learned and taken to heart within the insulation industry from this tragedy. For this reason, I propose to make a number of recommendations pursuant to s 82 of the Coroners Act 2009.

Findings s 81 Coroners Act 2009

65. I find that Marcus Wilson died on 21 November 2009 at Nepean Hospital from complications arising from hyperthermia, including total organ failure, rhabdomyolysis and coagulopathy which arose from working in very high temperatures as a roofing insulator without adequate hydration.

Recommendations s 82 Coroners Act 2009

66. I make the following recommendations:

(i.) I recommend that the WorkCover Authority of NSW consider undertaking publicity campaigns from time to time directed to industry bodies, industry training organisations, businesses and individuals emphasising the risks of heat stress and heat stroke, and the importance of regular consumption of water instead of, or in addition to, any other drinks, as a primary means of preventing heat stress or heatstroke. The publicity materials should include specific reference to the danger of hydrating solely with soft drinks and caffeinated drinks.

(ii.) I recommend that the Australian Construction Training Service consider conducting random audits of registered trainers and training organisations using its materials for certificate courses to assess that such training is being delivered appropriately and effectively.

(iii.) I recommend that the ACTS consider requiring registered trainers and training organisations to certify that courses they conduct have included a practical component and assessment in accordance with an appropriate standard set by the ACTS. The trainers and training organisations ought be required to describe the activities or competencies and method of assessment applied.

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(vi.) I recommend that the ACTS consider having its insulation industry materials reviewed by a specialist adult educationist to ensure that they meet "best practice" educational standards and consider modifying the course design in accordance with the findings of such a specialist.

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(viii.) I recommend that Standards Australia consider amending the Australian Standard AS3999-1992 to include a reference to managing hot conditions.

(ix.) I recommend to the Commonwealth Minister for Finance that guidelines for Australian Government programs include a standard reference to the requirement for compliance with State and Federal occupational health and safety legislation insofar as they are relevant to particular programs.

Magistrate Hugh Dillon
Deputy State Coroner for NSW