
**FINDINGS, COMMENTS and RECOMMENDATIONS of
Coroner Rod Chandler following the holding of an inquest
under the *Coroners Act* 1995 into the death of:**

Benjamin Paul Wicks

Contents

Hearing Dates	3
Representation	3
Introduction	3
Background	3
The Evidence	4
Events Preceding 29 January 2013.....	5
Events on 29 January 2013.....	7
Post-Mortem Examination	14
Findings Required by s28(1) of the Coroners Act 1995.....	14
Further Consideration.....	14
Recommendations	16
Concluding Comments	17

Record of Investigation into Death (With Inquest)

Coroners Act 1995

Coroners Rules 2006

Rule 11

Hearing Dates

21, 22, 23 and 31 May 2018

Representation

Counsel Assisting the Coroner	Mr Simon Nicholson
Counsel for J Hutchinson Pty Ltd	Mr Greg Melick
Counsel for the Wicks Family	Mr Tim Ellis
Counsel for Hobart City Council	Mr Neil Readett
Counsel for Messrs Hazell and Jacobs	Ms Katie Cuthbertson

Introduction

On 29 January 2013, Mr Benjamin Paul Wicks died as a result of an injury occurring at his place of work. In accord with s24(1)(ea) of the *Coroners Act 1995* (the *Act*) an inquest into the death has been held. These are my findings arising from that enquiry.

Background

Mr Wicks was the son of Paul and Andrea Wicks. He was born on 15 August 1980 and was aged 32 years. He was unmarried and resided at South Arm. He enjoyed good health.

Since 1987 Mr and Mrs Paul Wicks had been the owners and operators of a pile driving business known as FPS Constructions (FPS). In March 2003 Mr Wicks began working for FPS as a piling technician and general labourer. His father gave this description of Mr Wicks' working experience:

"During Ben's years at FPS he'd gained a wide range of experience in all types of site, weather and working conditions, both on land as well as marine work. In that time, Ben had driven literally thousands of piles, at a guess I would say in excess of 10,000 and he had become very proficient at the operation of piling equipment as well as undertaking the underlying principles of what needs to be achieved.

Ben was a good thinker, always looking for better ways of carrying out work as well as being extremely safety conscious. If Ben saw someone doing something amiss while working with the equipment for example, standing in the wrong area or using a damaged sling or slinging something incorrectly, he would immediately stop work and rectify the situation.”

On 13 November 2012, FPS was sold to L M Calcraft Construction Pty Ltd (Calcraft). Its directors were Mark and Lois Calcraft. Mr Wicks continued working for the new proprietor in the same capacity.

The Hobart City Council operates a refuse tip at McRobies Gully in South Hobart (the tip). It entered into a contract with Hutchinson Builders Pty Ltd (Hutchinson) for Hutchinson to construct a waste transfer centre at the tip. Hutchinson then sub-contracted with Spectran Pty Ltd (Spectran) for it to carry out certain civil works including pile driving. Christopher Hazell was Spectran’s managing director.

Construction of the waste transfer centre began in around May 2012. The first stage in the project included preparation of a weigh bridge site which required some pile driving work. This was carried out by Spectran using its own pile driving rig. There were difficulties with the pile driving because the rig was not fit for purpose. It led to Hutchinson giving notice to Spectran to remove its rig from the site. This led in turn to Spectran approaching Calcraft to perform the pile driving work for stage two of the project. Initially, Calcraft proposed that it carry out the augering of the holes as well as driving the piles. However, Spectran preferred to do the augering work itself and in the end the parties agreed to proceed on the basis that the augering would be done by Spectran and Calcraft would be responsible for the pile driving. Mr Wicks was the operator assigned to do the pile driving for Calcraft. At the same time, Calcraft engaged Anytime Fencing and Welding to provide assistance to Mr Wicks including any necessary welding work. Its partners were Andrew Wicks and Adam Brain.

The Evidence

A number of persons gave evidence to the inquest. In each instance they had previously provided an affidavit and/or had participated in a record of interview as part of an investigation carried out by WorkSafe Tasmania. Those affidavits and/or a transcript of the interviews formed part of their evidence. The witnesses were:

- Mr Paul Wicks.
- Mr Robert Dobie, the site supervisor employed by Spectran.

- Mr Todd Donaghy, an excavator operator also employed by Spectran.
- Mr Jason Scott, Spectran's occupational health and safety manager.
- Mr Robert Jacobs, a project manager employed by Spectran.
- Mr Brain.
- Mr Andrew Wicks.
- Mr Hazell.
- Mr Calcraft.
- Mr David Paul, the proprietor of Tasmanian Rigging Supplies Pty Ltd.
- Mr Gareth Davies, a health and safety manager employed by Hutchinson.
- Mr Lindsay Good, also employed by Hutchinson as a site manager.
- Mr Justin Reid, employed by Spectran as an excavator operator.

In addition, the inquest received into evidence a large volume of documentary material, a significant portion of which was accumulated during the course of the WorkSafe Tasmania investigation.

Much of the evidence is straightforward and non-contentious. Where there are conflicts or inconsistencies I will deal with them as they arise. Otherwise my findings shall be made upon the narration of events which follows.

Events Preceding 29 January 2013

Calcraft's agreement with Spectran was for it to drive 34 piles using the holes pre-augered by Spectran. Each pile was about 6 metres in length and weighed around 1 tonne. Calcraft's pile driving modus operandi involved it utilising its own 25 tonne excavator which was fitted with a grab attachment. The attachment is used to position each pile in an upright or near-vertical position in a hole pre-augered to a depth of about two metres. Once in that position the grab attachment is then detached from the pile leaving it to stand on its own accord. The grab attachment is then disengaged from the arm of the excavator and replaced with a pile-driving attachment. That device is then fitted over the top of the upright pile like a helmet and used to hammer it into the ground. In the weeks prior to 29 January 2013, Calcraft had used this method to successfully drill the great majority of the 34 piles. All of these had been driven on reasonably level ground. However, there were three piles which had to be driven into a sloped embankment known as the batter. This presented particular difficulties as explained in this exchange between Mr Dobie and counsel for Mr Wicks' family:

Counsel: But when you came to-on the slope, things were different weren't they?

Mr Dobie: Yes.

Counsel: You couldn't drill the holes deep enough for a start?

Mr Dobie: A lot of the holes were – some of the holes were driven deep enough but had fallen back in over time.

Counsel: Didn't you burn out an auger trying to drill the holes in there?

Mr Dobie: We did, yes.

Counsel: And the holes weren't more than a metre deep?

Mr Dobie: No.

Counsel: Is that right?

Mr Dobie: From memory, yes.

Counsel: Basically they were too shallow and too wide to hold up a beam?

Mr Dobie: Correct.

Counsel: And shortly before the 29th and in fact perhaps before Christmas, FPS had expressed dissatisfaction and you had re-augered, re-drilled some of the holes?

Mr Dobie: I don't recall, sorry.

Counsel: Yes. But still it would've been quite clear to you that the beams that you were working with wouldn't have stood up by themselves in the holes on the slope?

Mr Dobie: Yes.

It was Mr Calcraft's evidence that at an early stage he and Mr Wicks appreciated that because of the incompetence of the holes drilled on the batter, Calcraft's standard piling method could not be utilized for the three piles which needed to be driven in that area. This was for two reasons. First, there would be a tendency for the pile, when downward force was applied, for it to *"pop out at the bottom."* Second, a pile could not safely stand in an upright position without support for the fifteen to twenty minutes that was needed to detach the grab attachment from the Calcraft excavator and replace it with the pile-driving attachment. Mr Calcraft said that sometime after Christmas 2012 he and Mr Wicks together discussed these issues with Mr Jacobs and Mr Dobie. One solution proposed by either Mr Calcraft or Mr Wicks was to fit Calcraft's grab attachment to a Spectran excavator and to use it to place the pile in the hole and to hold it upright whilst the pile-driving attachment on the Spectran

excavator was used to drive the pile. However, Spectran did not have an excavator suited to fit the grab attachment so this option had to be abandoned.

It was Mr Calcraft's further evidence that it was then suggested to Mr Jacobs that the area of the batter should be benched or made level so that the piles could be driven into horizontal ground. To proceed this way would have enabled Calcraft to drive the three piles using the same method it had used for all the other piles. However, according to Mr Calcraft this proposal was rejected by Mr Jacobs. He explained the reason given in these terms: "*Their words were, 'It would cost too much to back fill.' There was no issue about the excavation. It was the cost to them of what the back fill would cost.*" According to Mr Calcraft this was an outcome which caused him some annoyance. Mr Calcraft's evidence on the subject of benching is disputed by Spectran. Mr Jacobs says that prior to the accident no one raised benching with him. He specifically rejected the suggestion that Spectran would not agree to benching because of cost, saying: "*...it wouldn't have been a big issue – cost wise it wouldn't have cost very much to bench it.*" Mr Hazell said that he was unaware of anyone raising with Spectran staff the subject of benching but that "*we would've been comfortable to do that if it had been requested.*"

To my mind Mr Jacobs was not an impressive witness. His testimony, especially when cross-examined, was argumentative, at times evasive and at other times illogical. For instance, he steadfastly maintained that Calcraft was responsible for augering the holes when all of the other evidence showed this to be a task for Spectran. In contrast, Mr Calcraft was a particularly credible witness. He was clearly intent on assisting the enquiry, he was forthright and did not attempt to avoid or minimize Calcraft's shortcomings. In the result, I prefer Mr Calcraft's evidence on the subject of benching. This leads me to find that benching was proposed to Mr Jacobs as a means of enabling Calcraft to use its pile driving method to drive the three piles in the area of the batter but Mr Jacobs, on Spectran's behalf, refused to entertain this option.

I now move to the fateful 29 January 2013.

Events on 29 January 2013

The usual start time at the tip work site was 7.30am. On 29 January Mr Brain and Mr Wicks travelled to work together. This was Mr Brain's second day on the job. En route they collected a generator from a shed at Mr Wicks' parents' property at Acton Park. They arrived at the workplace at around 7.45am. Mr Andrew Wicks arrived at much the same time.

I need to interpolate at this point to detail some of the documentation which was relevant to the piling operation. The first is a document completed for Calcraft and entitled Risk Assessment and Work Method Statement. Among other things it identifies activities arising from the work required of Calcraft (referred to in the document as FPS), the risks associated with those activities and the controls to address those risks. For the activity 'Entering project site' risk management controls are cited to include 'Daily Toolbox to be conducted by Spectran/Hutchinson Builders' and 'FPS to create an exclusion zone around the piling area.' For the activity 'Operation of pile rig' the risk management controls to be actioned by FPS are stated to include 'Set a 10.0m exclusion zone around piling area' and 'All site operatives to be advised of all piling exclusion zones at daily toolbox meeting.' For the activity 'Piling operation' one risk management control to be actioned by Spectran/FPS is 'Welder to obtain a daily hot work permit.'

Another relevant document is a Pre-Start Checklist which is a form stated to be completed prior to commencement of every job, every day. Such form was completed for 29 January 2013 and a 'Yes' box has been ticked in response to the question 'Is the Job safe to proceed?' The Checklist also includes a section 'Safety Toolbox Meeting/Record' which lists one of the day's activities as "*Pile driving.*" Under 'Safety Controls' it includes "*Be aware of swinging machines.*" The checklist has been signed and dated by a number of personnel including Mr Reid, Mr Calcraft, Mr Wicks, Mr Brain and Mr Andrew Wicks. There is also a completed Daily Prestart Record for 29 January which shows pile driving as one of the day's tasks and includes in the safety issues to be focused upon: "*Be aware of swing machines.*" The Record has the same signatories as the Pre-Start Checklist. However, it needs to be noted that Mr Wicks, Mr Brain and Mr Andrew Wicks had not arrived on the site that day until after the toolbox meeting when those matters shown on the day's Prestart Record were discussed. Instead they each signed the document which had been left in Mr Dobie's office after they arrived at the site and before they started work.

I now return to the narrative.

There is not any evidence in the days prior to 29 January of any agreement having been reached upon the method to be employed to drive the three piles on the batter. However, by that morning it seems that Mr Wicks was anticipating a method which utilised a sling, as he discussed the subject of slings with Mr Brain as they travelled to work. I am satisfied that after Mr Wicks arrived at the workplace he enquired of Mr Dobie whether Spectran could make available an excavator to assist in that day's pile driving. Mr Dobie agreed to provide Spectran's 11 tonne excavator along with its operator Mr Reid. A method to drive the three

piles on the batter was then settled upon between Mr Wicks and Mr Dobie. It involved the Spectran excavator utilising a sling to drag each pile to the point where it was to be driven, to place it in the pre-augered hole and to then hold it upright so that Calcraft's pile-driving attachment, which would be fitted to its own excavator, could then be employed to drive the pile. Several observations can be made at this point upon this method:

1. It differed markedly from the method previously employed.
2. Notwithstanding the different work method, it was not the subject of a Risk Assessment and Work Method Statement. As such, there was no formal consideration of the risks associated with the method and the strategies needed to respond to those risks.
3. It was settled upon after the morning's toolbox meeting. As such, the Pre-Start Checklist and Daily Pre-Start Record which were considered at that meeting were obsolete or at least incomplete. In particular, there had not been an opportunity to consider the safety aspects of the new method, the necessary safety controls and whether it could be positively asserted that it was safe to proceed.
4. Although an experienced excavator operator, Mr Reid did not have any prior experience in pile driving.
5. Although he was Calcraft's principal on-site representative, Mr Calcraft was not involved in any of the discussion leading to the adoption of the new method.
6. That Hutchinson, as the principal contractor, was not advised of the change in the pile driving method.

After the new method was decided upon, Mr Dobie agreed to provide a shackle to be utilised with the sling. However, he maintained that Spectran did not have on site a suitable sling and he advised Mr Wicks of this. He says that Mr Wicks responded by saying that he had a sling and that he would collect it. At this point I need to address some conflicting evidence concerning ownership and provision of the sling.

The sling in question was a 2 metre 100% polyester round sling with a 2 tonne work load limit. Both Mr Hazell and Mr Dobie maintained that this sling did not belong to Spectran and was not provided by it. As I have already noted, Mr Dobie asserts that Mr Wicks informed him that he had a sling on site and that he went to collect it. It was Mr Reid's evidence that he understood the sling to have been provided by Mr Wicks. However, it was Mr Calcraft's evidence that the sling was not the property of his business. Mr Paul Wicks gave evidence consistent with this assertion. He was firm in his view that the sling involved in the accident

had not belonged to FPS, although he accepted that slings generally were part of FPS's plant and equipment but were usually used for horizontal rather than vertical lifting. It was his evidence that FPS acquired all of its rigging gear from Tasmanian Rigging Supplies Pty Ltd (Tas Rigging) and Mr David Paul, the owner of Tas Rigging, informed the inquest that his business had not sold the sling to FPS or to Calcraft, its successor. Further, Mr Paul Wicks provided evidence which showed that the sling had been imported into Australia on 3 August 2010 by the Australian Lifting Centre and was part of a batch sold either to an entity described as Tasmanian Lifting Sales on 21 April 2011 or to Webster Bearing and Engineering Supplies on 28 September 2011. Also in evidence is copy of an invoice of Brierley Tas Lifting (Brierley) which I accept to be synonymous with Tasmanian Lifting Sales. This invoice indicates that on 12 April 2011 Spectran ordered from Brierley some lifting equipment including two slings described as "*WEBBING ROUND 2T X 2M.*"

Mr Paul Briggs postulates that at the time Brierley received the order it did not have the slings in stock. This was followed by Brierley placing an order for six slings with the Australian Lifting Centre which was fulfilled on 21 April. Brierley then on-sold to Spectran two of the six slings including the sling involved in the accident.

Several factors mitigate against Mr Paul Wicks' proposition. First, the order made by Spectran was for webbing straps yet the strap involved in the accident and provided by the Australian Lifting Centre was made of polyester. There is no evidence to indicate that the provision of a polyester strap in lieu of a webbing strap is an acceptable substitute within the rigging/lifting industry. Further, whilst the Brierley invoice does show the order for webbing slings being made on 12 April 2011, that same document is also given the same date, indicating in the absence of any evidence to the contrary, that the order was filled on that same day. If that is correct then the slings provided courtesy of that order could not have included the accident sling as it was not consigned to Brierley until 21 April 2011.

My consideration of all of the relevant evidence leads me to find that I cannot be satisfied that the accident sling was the property of FPS, Calcraft or of Spectran. It remains possible that the sling was the private property of Mr Wicks and that he brought it to the site on 29 January. However, to my mind it would be unusual for an employee to personally acquire and provide equipment such as a sling for use by his employer. Further, neither Mr Paul Wicks nor Mr Calcraft considered that the sling belonged to Mr Wicks. Overall, I am not able upon a consideration of the relevant evidence to positively find, for the purpose of this enquiry, that Mr Wicks owned the accident sling and/or that he provided it for use on 29 January. In the

result, the owner of the sling and how it came to be at the worksite on the day of the accident are facts that remain undetermined.

As I have already noted, there were three piles to be driven on the batter. It was Mr Dobie's evidence, which I accept, that Mr Wicks attached the sling to the first pile and then attached it to the excavator. It was then successfully dragged by Mr Reid using the Spectran excavator to the pre-augered hole, where it was then held upright by utilising the sling. During these manoeuvres both Mr Wicks and Mr Dobie were standing in the area of the pre-augered hole and hence within the 10 metre exclusion zone prescribed by the Risk Assessment and Work Method Statement. It is my understanding that one person, at least, was required to be in this position to act as a 'spotter' for the excavator operator to ensure that the pile was correctly positioned and aligned. The first pile was then held in position whilst Mr Wicks operated Calcraft's excavator and its pile driving attachment to drive the pile.

After the first pile was successfully driven, Mr Dobie carried the sling up the embankment to the area where the piles were located. The second pile was then lifted from the ground by the excavator and Mr Dobie then fed the sling underneath it. After this Mr Wicks adjusted the sling on the pile and then attached it to the excavator. He and Mr Dobie then positioned themselves again in the exclusion zone and the method that was utilized to drive the first pile was repeated.

The driving of the first and second piles was uneventful save for one incident described by Mr Dobie and involving a "*swinging*" of the pile and which required both him and Mr Wicks to take hold of it "*just to stabilise (it) so it could be positioned into the hole.*" Mr Dobie was unsure whether this event involved either the first or second pile. Nevertheless, it is clearly described in this exchange between him and counsel for the Wicks family:

Counsel: I understand you to say at some stage that one of the beams was swinging?

Mr Dobie: Yes.

Counsel: I take it that was the first or second?

Mr Dobie: That was the...yeah I can't remember which one.

Counsel: No, it's okay. Where was it swinging and how was it swinging?

Mr Dobie: The bottom end of it was penduling off the top as it was by the hole so it was over the top of the hole.

Counsel: Okay, so was the bottom on the ground or was it free swinging in the air?

Mr Dobie: It was free swinging in the air but it was probably only about three or four hundred off the ground.

Counsel: Okay. And with this being free swinging in the air, you say you saw Ben?

Mr Dobie: Ben grabbed hold of the end of the beam just to stabilise so it could be positioned into the hole.

Counsel: Over the hole?

Mr Dobie: Yes.

Counsel: So he must have been close to it or did he have to run down the hill and grab it?

Mr Dobie: No, he was fairly close to it so he probably moved about three or four metres to grab it.

Counsel: So he was close to it when it was swinging in the air?

Mr Dobie: When you say swinging in the air, it's over the top of the hole about 300 mills. to the ground it's swinging around.

After driving of the second pile commenced, Mr Dobie, along with Mr Reid, left the embankment area for their morning 'smoko.' Mr Wicks then completed driving the second pile after which he and Mr Brain together left the worksite to purchase some food at a nearby bakery. They were off site for around 20 to 25 minutes. Mr Brain says that when they returned the plan was for him to replace Mr Dobie as the person to assist Mr Wicks in placing the pile in position whilst it was being held by the sling.

I need to record that up to this time Mr Calcraft had watched the driving of the first and second piles but had not been actively involved. He then left the tip site to work elsewhere.

Who was responsible for 'slinging' the third pile and attaching it to the excavator? Mr Dobie says that before he left for 'smoko' he carried the sling up the embankment and left it in the area of the stacked piles. He says that he did not wrap it around a third pile. After 'smoko' he did not return to the embankment area but instead began operating a roller at a different section of the work site. He was therefore unable to say who attached the sling to the third pile and in turn attached it to the excavator. When he took over Mr Dobie's role, Mr Brain says that the sling had already been attached to the third pile but he did not see who attended to this. Mr Reid denied being involved in 'slinging' the third pile but was unable to say who attended to this. He had no memory of seeing either Mr Brain or Mr Wicks being involved in this task. Mr Donaghy was working on his excavator during the pile driving operation and had

a clear view of events including the accident. However, it was his evidence that he did not see who it was that was involved in the attachment of the third pile. The only other evidence on this subject was given by Mr Andrew Wicks. During the piling operation he was carrying out some welding work nearby and his view was partly obscured by welding screens. Nevertheless, he says that before 'smoko' he "*saw someone strapping a pile up.*" He said that person was "*just attaching the sling to the pile*" and he believed that person was a Spectran employee because he was wearing a Spectran high-visibility top. However, he was unable to name the person. Specifically, he did not believe it to have been Mr Dobie.

It is of course possible that it was Mr Wicks who attended to the 'slinging' of the third pile. However, as can be seen from the preceding paragraph, the evidence on this subject is imprecise and ambiguous. In the result, I am unable to positively find that either Mr Wicks or any other person carried out this task.

Just before the accident Mr Brain and Mr Wicks were standing near each other on the embankment and about one metre from the hole or indentation where the pile was to be placed. Mr Brain thereby had a clear view of the event. He described the pile initially being dragged on the ground but when it was being maneuvered over the embankment he observed the bottom of the pile become airborne so that "*none of it was touching the ground.*" At this point the pile "*spun violently*" and the sling then failed. Similarly, Mr Donaghy described seeing the pile being in free air and then making a three quarter twist whereupon the sling "*snapped and (the pile) rolled down the bank.*" At this point I specifically reject Mr Reid's assertion that just prior to the failure of the sling the pile was in a near upright position with no weight on the sling. This evidence is illogical and directly contrasts with the evidence of both Mr Brain and Mr Donaghy which is more feasible and which I prefer.

When the sling failed the pile suddenly fell and moved down the embankment. As it did so it struck Mr Wicks causing him severe injuries. An ambulance was summoned and arrived at 10.57am. Resuscitation was carried out but Mr Wicks could not be revived.

The sling was examined post-accident at the request of WorkSafe Tasmania. It was the unchallenged evidence that:

- Prior to the accident, the sling should have been withdrawn from service because it had not been subject to an inspection program prescribed by Australian Standards.
- The sling evidenced signs of damage which pre-dated the accident.

- The sling evidenced signs of damage sustained at the time of the accident described as non-fraying “cuts or tears” consistent with having been “cut by a scissor type action.”

Post-Mortem Examination

This was carried out by forensic pathologist, Dr Donald Ritchey. He reports that in his opinion the cause of Mr Wicks’ death was blunt trauma to his chest and abdomen due to crushing by a steel beam. I accept this opinion.

Findings Required by s28(1) of the Coroners Act 1995

I make these formal findings:

- a) The identity of the deceased is Benjamin Paul Wicks.
- b) Mr Wicks’ death occurred in the circumstances set out in these findings.
- c) The cause of death was blunt trauma to the chest and abdomen due to crushing by a steel beam.
- d) The death occurred on 29 January 2013 at South Hobart, Tasmania.

Further Consideration

It is self-evident that pile driving is a high-risk activity which mandates strict adherence to the accepted practices of workplace safety if worker injury and/or death are to be avoided. In this instance, the evidence shows that FPS and later Calcraft had utilised a pile driving method or system which reduced the likelihood of a workplace accident, most notably because it made unnecessary the use of slings. At the tip site this method had worked well and without incident in the weeks prior to 29 January 2013. However, sometime before this date it was realised that this method would not be suited to the driving of the three piles on the embankment. This was because Spectran had been unable to auger holes in that area, which were of sufficient depth and integrity to hold an un-driven pile upright without support and to avoid the pile from “pop(ping) out at the bottom” when driven. This realisation made necessary the adoption and implementation of an alternative system to deal with the three piles on the embankment.

The evidence, as I have already stated, shows that the response to the need for a different pile driving system involved Mr Wicks and Mr Dobie together agreeing on the day of the

accident to a method which involved two excavators and the use of a sling to manoeuvre each pile into position and to hold them upright to enable them to be driven. In my view this response was ill-considered and contrary to established principles of workplace risk management. Rather, it is my further opinion that the following should have occurred:

1. A decision taken together by Calcraft and Spectran and advised to Hutchinson to suspend the pile driving operation until a method was determined to safely drive the three piles on the embankment.
2. For Spectran, as the party responsible for augering of the holes and the standing of the piles, together with Calcraft to undertake a detailed consideration of the options available to drive the three piles, the risks associated with each of those options and the means of avoiding or minimizing those risks.
3. If properly carried out the process should have identified and addressed the following risks associated with the 'sling method':
 - a. Whether Mr Reid was sufficiently skilled to carry out the role proposed for him.
 - b. The difficulties for the excavator operator in maneuvering a slung pile over an embankment and including the need to align it with a destination point on the embankment.
 - c. The need for two workers to be working within the exclusion zone and below the pile whilst it was held by a sling.
 - d. The condition of the sling and whether it had been subject to the inspection programme required by Australian Standards.
 - e. The effect upon the likely integrity of the sling when used to drag a pile over ground.
 - f. The appropriate means of attaching the sling to the pile and then attaching it to the excavator.
 - g. The effect upon the integrity of the sling in the event of the pile becoming elevated and twisting or spinning.
4. If properly carried out the process should also have identified benching of the embankment area as an alternative option.
5. Once the way forward was agreed upon, it should have been incorporated in the site documentation and been the subject of consideration at a toolbox meeting before pile driving resumed.

Sadly, this case demonstrates the consequences of ignoring basic principles of risk management. It occurred because Spectran, Calcraft, (with input from Mr Wicks as the most experienced and competent pile driving operator) along with Hutchinson, as the body with overall responsibility for the workplace, did not participate in a sufficiently thorough risk assessment process when considering the best and safest means of driving the three piles on the embankment. Had they done so it almost certainly would have demonstrated that the safest and most practical means of proceeding was to bench the embankment area thereby enabling Calcraft to drive the piles using that same method which it had successfully and safely employed at the site prior to 29 January 2013. In this context Mr Wicks' death was preventable.

Recommendations

In his closing submissions counsel assisting provided his advice upon recommendations I could suitably make. In my opinion, those advised recommendations are appropriate and should be made. They are, with minor amendment, that:

- a. Those in the piling industry adopt safe work method practices that include documented safe work method statements, which include:
 - i. An outline of the method to be adopted to pile;
 - ii. An assessment of the risks involved, any hazards present, and measures to mitigate and control those risks and hazards;
 - iii. An assessment of the use of any lifting gear, including slings;
 - iv. The use of a register to record the owner of any lifting gear used on work sites during piling operations;
 - v. A requirement, conveyed to all workers involved in piling operations at any level, that work is to stop and to be reviewed — with such review documented — if there is a change to work method involving the adoption of a new method of piling utilising, for example, lifting gear such as a sling (particularly if the method changes from purely mechanical to involving interaction between machinery and workers).
- b. Consistent with Industry Standards, the safety plan for piling operators take into account the following further safe work practices:
 - vi. Consulting with all employees about piling operations on site;

- vii. Coordination between a principal contractor on site and any other contractor retained, particularly in the context of contractors retained to undertake specific work such as piling;
- viii. Effective site management to take into account changes in work methods (and review of same);
- ix. Effective hazard identification and risk management;
- x. The implementation of detailed safe work method statements that, as a minimum, set out the work method to be adopted in piling, and which allows for documented review and modification, with work stopped until such review and modification has taken place;
- xi. Ensuring that all lifting gear used or brought onto site is compliant with relevant standards, and in particular, fit for purpose, and that maintenance records are reviewed prior to work commencing using such lifting gear to ensure compliance;
- xii. Ensuring that the basis of administrative controls such as exclusion zones are understood by workers, and that appropriate supervision is undertaken to enforce such zones;
- xiii. Ensuring that principal contractors effectively and consistently liaise with all contractors on site to address safety concerns, particularly in circumstances where piling operations are taking place at sites involving loose ground, changing ground conditions, or where difficulties present when using methodologies involving the pre-augering of holes and standing of piles prior to piles being driven.

Concluding Comments

I extend to Mr Wicks' family and loved ones my sincere condolences for their loss. I trust that this inquest has been of some benefit to them all in coping with it.

I wish to record my thanks to counsel assisting Simon Nicholson and to coroners' associate Katie Luck for their excellent work in preparing for and conducting the inquest.

Dated: 6th day of December at Hobart in the State of Tasmania.

Rod Chandler
Coroner