OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION:	**Inquest into the death of Barry John Charles CUSACK**
TITLE OF COURT:	Coroner's Court
JURISDICTION:	Cloncurry
FILE NO(s):	COR 2894/04(1)
DELIVERED ON:	27 February 2009
DELIVERED AT:	Charters Towers
HEARING DATE(s):	27 May 2008
FINDINGS OF:	Mr S Luxton, Coroner
CATCHWORDS:	CORONERS: Inquest – Mining accident, training issues, Workplace Health and Safety Management

REPRESENTATION:

Counsel Assisting:	Mr John Tate (Crown Law)
Cudeco:	Mr R Ashton instructed by McDonnells Lawyers
Dept of Mines and Energy:	Mr A D Scott
Executors of the Estate of Timothy Koitka:	Mr L A Evans

This morning has been set aside for the delivery of the findings and recommendations with respect to the cause and circumstances of the death of Barry John Charles Cusack.

An inquest into Mr Cusack's death was held at the Cloncurry Court on 27 May 2008.

Section 45 of the *Coroners Act 2003* clearly sets out those matters which a Coroner must, if possible, establish. These are

1. That a death has, in fact, occurred
2. The identity of the deceased person
3. How the person died
4. When the person died
5. Where the person died
6. What caused the person to die

Section 46 of the Act provides that a Coroner may, where he or she deems it appropriate, comment on matters relating to

1. Public Health and Safety
2. The administration of justice
3. Ways to prevent deaths from happening in similar circumstances in the future

Section 48 of the Act provides the Coroner with authority to report to an appropriate authority when he/she reasonably suspects that an offence has been committed or misconduct has occurred.

Further provisions of the Act preclude any finding of guilt for a criminal offence or any finding of civil liability on the part of any person.[1]

It is always important to bear in mind when considering these matters the observations of His Honour Justice Toohey in the matter of *Annetts v. McCann*[2]. In following the words of Lord Lane, often quoted in matters of this nature[3], a framework to consider the evidence put before this Court is provided.

Lord Lane stated:-

"It should not be forgotten that an inquest is a fact finding exercise and not a method of apportioning guilt. The procedure and rules of evidence which are suitable for one are not suitable for another. In an inquest it should never be forgotten that there are no parties, there is no indictment, there is no prosecution, there is no defence, there is no trial, simply an attempt to establish fact. It is an inquisitorial process, a process of investigation, unlike a

[1] Section 45(5) of the *Coroners Act 2003*
[2] (1990) 170 CLR 596
[3] For example see the Finding of R Spencer, Coroner in the matters of Phillip Allan Water Tognola (Cairns Coroner's File 37/03) www.courts.gov.au/1680 delivered 1 November 2005

trial. Although a coronial inquiry is not a judicial proceeding in the traditional sense, the rules of natural justice and procedural fairness are applicable, the content of such rules to be applied, depending on the particular facts of the case in question"[4].

Mr Cusack commenced his duties for the day at the Mt Norma Mine at 6.45am on 24 November 2004. The Mt Norma mine is located approximately 30 kilometres southeast of Cloncurry. At that time the mine operator was Australian Mining Investments Ltd which later became CuDeco Ltd. A Mr David Wood, Mine Manager and Company Surveyor at the mine met with Mr Cusack at his place of work some 20-30 minutes later. Mr Wood instructed Mr Cusack to drill some holes in the northern mine face of bench 345[5]. Bench 345 was located on the western side of the mine and ran roughly in a north-south direction. The eastern side was the open face of the bench.

Mr Cusack used a Gardner Denver model ATD, 3700A "Air Trac" Drill Carrier to carry out this task. Mr Wood left the bench to attend to some tasks of his own. Upon completion of those tasks Mr Wood returned to the work bench at approximately 10.30am. Upon approaching the work bench he observed a quantity of dust and noted that the air compressor was still running on the bench. Upon reaching the work bench he observed the "Air Trac" Drill some 15 metres below the bench. He also saw Mr Cusack lying alongside the machinery. Mr Wood immediately went to Mr Cusack and after failing to detect any vital signs went to the mine plant to advise Mr Peter Hutchison of the accident and also proceeded to call 000 to arrange for an ambulance to attend. Both men returned to the accident site where Mr Hutchison checked for vital signs. Upon finding none, Mr Hutchison returned to the plant whilst Mr Wood stayed at the accident site until ambulance officers and a doctor arrived. Police Officers and Mines Inspectors from the Department of Natural Resources and Mines arrived some time after the attending doctor had pronounced Mr Cusack deceased.

The evidence of Inspector Dryden played an important role in making findings and recommendations in this matter. It is relevant to note that Inspector Dryden was not the investigating officer in relation to this accident. The investigating officer was Ross McLellan who had left the employ of the Department of Natural Resources and Mines prior to the Inquest taking place. Inspector Dryden has extensive experience in the mining industry[6] and gave a power point presentation to the Court on how she believed Mr Cusack came to his death. She had used the information supplied in Mr McLellan's report, together with her own qualifications and experience, in reaching her conclusions. Counsel for CuDeco Limited submitted that as Inspector Dryden had not been present for the initial investigation and as her conclusions and the process by which she reached those conclusions was not based on her report, then her evidence was to be considered with caution. Counsel pointed

---

[4] The Queen v. South London Coroner; Ex parte Thompson (The Times, 9 July 1982) quoted in Jervis on the Office and Duties of Coroners, 10th ed. (1986) page 6. Quoted by His Honour Justice Toohey in the matter of Annetts v McCann (1990) 170 CLR 596

[5] Statement of Events under the hand of David J. Wood

[6] Transcript Page 7

to several discrepancies in the methodologies and conclusions of Inspector Dryden and Mr McLellan which supported this approach.[7]

Whilst it is correct to approach Inspector Dryden's evidence with caution I am not perturbed by any discrepancies or differences in the opinions of Inspector Dryden and Mr McLellan. I would be staggered if there had been no such differences. It is surely to be expected that two persons who have extensive experience in the mining industry would have differing views on various aspects of how the incident occurred. I am in agreeance with Counsel for the Department of Mines and Energy on this point when he stated in written submissions:-

"It is unremarkable that a person looking at something with "fresh eyes" might attach significance to matters not previously referred to by the person who first looked at it."[8]

I firstly considered the machinery which Mr Cusack was operating on the day the accident occurred. Inspector Dryden's evidence established that the Gardener Denver model ATD, 3700A "Air Trac" Drill Rig was a mobile Drill Rig which utilised air tracks to enable the driller to be moved from site to site. The drill was predominantly used for vertical drilling but was able to drill horizontally. A mast, boom, drill head and stinger were the main components relating to the drilling operation of the unit. The boom, the mast, and the stinger were able to be extended. A key characteristic of the unit is that level ground is required to stabilise the unit whilst drilling is being performed. When drilling is not being performed the unit is able to travel over uneven ground due to the air tracks.[9]

Mr Wood's statement was that he, Timothy Koitka (the Senior Site Executive at the mine) and Mr Cusack had discussed the drilling of holes at the work bench on the evening prior to 24 November 2004. Three holes had been drilled into the face by Mr Cusack at that point and it was agreed that a further four to five drill holes were required. Mr Wood was clear in his Record of Interview that he had directed Mr Cusack not to climb any rocks when drilling.[10]

It is also not disputed that the bench on which Mr Cusack was drilling was a narrow bench, some 7 metres wide. The topography of the mine made working it "very, very difficult"[11].

The mine bench itself had been unable to be cleared due to difficulties with the excavator at the mine site.[12]A Mr Ugo Angeli, who inspected the bench after the incident, and who has more than 40 years of experience operating an Air Trac Drill when asked to give his opinion of the bench 345 said:-

---

[7] See Written submission for Cudeco Ltd Pages 2-5
[8] See Written submissions for Department of Mines and Energy Page 7
[9] Transcript Pages 13-14
[10] ROI David John Wood Page 2
[11] Transcript Page 55
[12] ROI David John Wood Page 2 and Transcript Page 16

"*First of all they never cleaned the bench, it should be clean. You can hardly walk there are rocks here and there. The bench is bloody hopeless."*

It is clear from the evidence that 7 holes had been drilled into the mining face on the northern wall of the bench. Two of these holes were drilled towards the outer edge of the mining face, that is, closest to the eastern edge of the bench. It is important to note that the drilling of both of these holes would require the drill to be moved via the boom and the mast, both horizontally and vertically. This would mean that a large proportion of the boom and mast were located outside the body width of the Air Trac when the drilling of these two holes took place. It is also relevant that the mining face was at an angle which additionally required the drill to be moved forward.

Inspector Dryden's evidence was that the Airtrac had mounted various rocks located near the mining face to effect the drilling of the holes. In effect, the left hand side of the airtrac had been elevated higher than the right hand side of the airtrac. Both tracs had mounted rocks so both were not at ground level. The mounting of the rocks also caused the front of the unit to be higher than the back. The unit, in this position, was sloping towards the eastern edge of the workbench. The bench was also sloped in this direction.

Inspector Dryden's evidence was that the effect of the unit being in this position was that the stability of the unit was altered to such a degree that eventually the unit toppled over the bench. Gouge marks located on the four rocks and a further gouge mark on the eastern edge of the working face support Inspector Dryden's evidence. Inspector Dryden's power point presentation and the Simtars animation presentation gave the Court considerable assistance in reaching its findings. Tragically, Mr Cusack went over the bench with the unit.

It is important to note the drill head had been retracted by Mr Cusack so it is clear that when the unit toppled over the side of the bench the unit was not drilling.

Inspector Dryden conceded that she was unable to determine when the unit became unstable, however her evidence was that the unit would be more stable when drilling. She was clear that, in her opinion, what caused the unit to tip over the bench was that the boom and the mast were extended and that eventually this has caused the unit to become unstable and topple, or flip over.[13]

Other scenarios, in particular, a report from Senior Constable Anderson who was the Police Officer investigating the matter suggested the unit had, in effect, been driven over the edge of the bench. Inspector Dryden, under cross-examination, but using the evidence before the Court excluded such a possibility in a more than convincing manner.

On the basis of the evidence before the Court I make the following findings in this inquest:-

[13] Page 59 Transcript

(1) That death did, in fact, occur
(2) That the deceased person was Barry John Charles Cusack
(3) That Mr Cusack's date of birth was 30 April 1971
(4) Mr Cusack's last known place of residence was 27 Kerr Street, Ballina , NSW 2478
(5) His date of death was 24 November 2004
(6) His place of death was Mt Norma Mine, via Cloncurry
(7) The cause of death was the injuries he received when the Air Trac, of which he was operator, went over the workbench 345 sliding down to a rill 11 metres below and then coming to rest 20 metres below the 345 bench.

The second aspect of this Inquest is the recommendations to be made from the evidence which was put before the Court.

There are two issues which Inspector Dryden highlighted in her evidence which I believe warrant consideration by the Court. First, was the issue of whether a safety bund should have been installed on the work bench. Secondly, the issue of Mr Cusack's training - specifically how the training was conducted, how Mr Cusack was assessed as being competent and what safety and health management systems were in place prior to the accident on 24 November 2004.

It is appropriate to state at the outset that I do not intend to make any recommendations under section 48 of the Act. It was made clear to me at the Inquest that any breaches have been dealt with. There is nothing to be gained by re-visiting these matters. I have considered these issues only on the basis that they may assist the Court in making appropriate recommendations.

Issue – Safety Bunds

A lot of the evidence given in respect of this issue revolved around the terms bund, bench and berm.

Inspector Dryden defined them as follows:-

"Bunding is what you call I guess a pile of rocks that we put along the side of an edge to prevent people falling into – over the edge. A bench is a working face, where this – this entire level area here – so that entire area is called the bench. And then you have a berm. I guess there's a couple of words for berm, because berms can be bunds or berms can be benches. Berms are normally benches that are no longer active that are used to stop rocks from coming down from the top going any further."[14]

It is clear from the evidence presented to the Court that no safety bund was in operation at workbench RL 435 for a number of metres, from the air compressor up to the mining face.

[14] Transcript Page 11

There are provisions in the *Mining and Quarrying Safety and Health Regulation 2001* which provide for a bund wall as an example of providing appropriate facilities to minimise the risk of persons falling into an excavation.

Inspector Dryden was firmly of the view that a safety bund should be installed for work benches where equipment is operating, such as bench 345 at Mt Norma Mine. She described the use of bunds as "industry practice".[15]

A Doctor Brian White gave evidence that he had involvement in the compilation of a Mining Plan for Mt Norma Mine in November 2003, prior to the accident occurring. In a Statement under his hand dated 24th May 2008[16] he stated the following:-

"*6. Paragraph 3 of the Mining Plan dated November 2003, under the heading "Proposed Excavation Method", provides in the last sentence "half wheel height safety bunds will be constructed along the outer edge of active safety berms".*

7.A berm is a flat horizontal surface that provides protection from falling objects for personnel working in the lower levels of an open pit. Berms are normally created by being left as the remnants of wider working benches that are being excavated towards the pit limits. Personnel would not normally be working on the berm except when maintenance of the berm itself is required.

8.In this instance at Mount Norma Mine, with the mode of excavation that had to be adopted, the berms also served as working benches during construction.

9.The expression "active safety berms" was intended to refer to berms that were currently being used for access for the purposes of maintenance or construction by personnel in rubber tyred equipment, and/or on foot (who might stumble). On the other hand, in this case, a bench would be the working section at the actual mining face.

10.Paragraph 3 of the Mining Plan November 2003 was not intended to require that a safety bund be constructed right up to the mining face on the working bench at 345m RL"

Dr White's statement then went on to explain why, in his opinion, a bund would not have been appropriate for the workbench. His evidence before the Court, in essence, expanded on the proposition that he did not intend the Mining Plan to require bunding on a workbench such as bench 345.

Mr Koitka in his Record of Interview dated 8 December 2004 was specifically asked about the lack of a bund on bench 345. He replied that inspection of the edge of the bench would not be possible if a bund was in place and that

[15] Transcript Page 56
[16] Exhibit 8

consequently supervisors could not be assured that operators would not be working on fill.[17]

It is not difficult to conclude that Dr White's Mining Plan, when referring to an active safety berm, could be read as referring to a safety bund to be installed on a bench such as 345. It is clear also that Mr Koitka had dispensed with the installation of a bund for reasons which appear to be independent from the Mining Plan in respect of the "Active Safety Berms" aspect. It is not clear from the evidence whether Dr White and Mr Koitka had discussed Paragraph 3 of the Mining Plan prior to its compilation. Dr White's evidence was that they discussed some like issues but there was no direct evidence of a discussion regarding safety bunds or safety berms. It is important to note that the safety bunds were not in place for the section of the bench which had not been cleared of rocks. It is possible to conclude that the inability to clear rocks from the bench could have led to the safety bund not being erected or installed.

On my observations, the installation of a bund on a working bench such as 345 would appear to be a prudent course of action. I do that bearing in mind that Inspector Dryden was unable to determine whether the installation of a bund at axle height would have prevented Mr Cusack's death[18]. One cannot discount, however, that the installation of a safety bund may have prevented the accident.

It is interesting to note that after the fatality occurred mine management had taken positive steps to ensure that risk assessment training was undertaken and that the mine plan was re-visited. Inspector Dryden's evidence was that high bunding, well above the minimum, was put in place at the mine after the accident.[19]

I take this issue no further than these observations.

Issue – Training/Health and Safety Management

Inspector Dryden's evidence on this issue highlighted, in her opinion, the failure of the Mine management to document Mr Cusack's training in relation to the use of the Gardener Denver model ATD 3700A "Air Trac" Drill Rig. There were several areas which concerned Inspector Dryden.

Mr Koitka, the Senior Site Executive had passed Mr Cusack as being competent on the machinery on 20 October 2004. Mr Cusack had worked as a driller's offsider for 3-4 weeks. He had then been allowed to drill whilst supervised for 3 weeks and was then passed as competent and therefore able to drill unsupervised.

It is obvious that this process enabled Mr Cusack to gain some practical "on the job" experience, however, Inspector Dryden indicated that this experience was not detailed in any document. Further there was no actual documentation

[17] Record of Interview T.F.Koitka Page 3
[18] Transcript Page 71
[19] Transcript Page30

relating to how Mr Cusack was assessed. It was not clear whether there was any written assessment in addition to any practical assessment. There was merely certification that Mr Cusack was competent.

Inspector Dryden was also unable to identify any document to indicate that Mr Cusack had any knowledge of the hazards of using the Air Trac. In her evidence she stated:-

"These hazards, however, were not included in the risk assessments, work procedures, safe working instructions or training documentation."[20]

Inspector Dryden was unable to find any documentation or record that Mr Koitka was sufficiently competent to train Mr Cusack on the use of the Air Trac. These concerns were the subject of extensive cross-examination by Counsel for Cu Deco.

It is obvious that Mr Cusack did gain "on the job" experience in using the Air Trac prior to his death. From all accounts he was an enthusiastic worker who was keen to learn as much as possible about his new job within the mining industry.

But Inspector Dryden's concerns are, in my opinion, valid and warrant consideration. It is one thing to certify that a person is competent but this must surely be supported by some evidence of how the competence is determined. It must also be established that the certifier is sufficiently qualified to make such certifications.

Inspector Dryden was also critical of the failure, in her opinion, of the Mine management to have in place an appropriate Safety and Health Management system. She stated in her evidence:-

"Looking at organisational factors. The mine designed created narrow benches. There was a poorly conducted hazard identification and risk assessment, leading to poor risk management practices….

AND FURTHER

The basis for that conclusion was looking at the risk assessments where they use soft controls to replace hard controls being a physical barrier, so they used supervision and procedures over hard – engineering controls or elimination controls such as bunding…..

AND FURTHER

There was a lack of appropriate procedures or safe work instructions for operating the air track and there was an inadequate training system for the air track. In short, there was nothing to prevent the accident from occurring."[21]

---

[20] Transcript Page 25
[21] Transcript Pages 28-29

Inspector Dryden's evidence was that there is a legislative requirement for mines to have a safety and health management system which is signed off by the Senior Site Executive but that this is only a requirement for mines which employ more than 10 people. Mt Norma mine employed nine.[22]

It is also important to note that following the accident all of the issues raised by Inspector Dryden were attended to by Mine management. It was suggested by Counsel Assisting towards the end of the hearing that a recommendation addressing the issue regarding mines which employ ten or less people may be appropriate[23]. It is obvious that an appropriate legislative measure will go a long way to addressing the issues which Inspector Dryden fairly raised.

I intend to make the suggested recommendation. This should not be seen as any criticism of the Mt Norma operation or CuDeco but is made with the intent of avoiding a re-occurrence of an accident such as that which led to Mr Cusack's death.

I therefore make the following recommendation:

THAT THE MINES INSPECTORATE CONSIDER LEGISLATIVE CHANGE FOR SMALL MINES AND QUARRIES (THOSE WHICH EMPLOY 10 PERSONS OR LESS) TO DEVELOP AND IMPLEMENT A SAFETY AND HEALTH MANAGEMENT SYSTEM TO SUIT THE NATURE AND COMPLEXITY OF THE OPERATION

I thank Mr Tate, Counsel assisting for his efforts throughout this matter. I also thank those Legal Representatives who appeared at Cloncurry on 27 May 2008. Although the family of Mr Cusack, by choice, did not attend nor have any legal representation at the hearing, it is appropriate that I place on the record my condolences to them for their sad loss.

Scott Luxton
Coroner
27 February 2009

[22] Transcript Page 33
[23] Transcript Page 115