IN THE CORONERS COURT
OF VICTORIA
AT MELBOURNE

Court Reference: COR 2012 004225

REDACTED FINDING INTO DEATH WITH INQUEST

Form 37 Rule 60(1)
*Section 67 of the **Coroners Act 2008***

Inquest into the Death of: AVA

Delivered On:	5 December 2013
Delivered At:	Coroners Court of Victoria Level 11, 222 Exhibition Street Melbourne Victoria
Hearing Dates:	5 December 2013
Findings of:	CORONER K. M. W. PARKINSON
Police Coronial Support Unit Assisting the Coroner	Leading Senior Constable John Kennedy

I, K. M. W. PARKINSON, Coroner having investigated the death of AVA

AND having held an inquest in relation to this death on 5 December 2013

at MELBOURNE

find that the identity of the deceased was AVA

born on 18 August 2010

and the death occurred on 6 October 2012

in Metropolitan Melbourne, Victoria 3013

from:

1 (a) POSITIONAL ASPHYXIA

in the following circumstances:

1. A summary inquest was conducted on 5 December, 2013 into the death of Ava.

2. The inquest examined the circumstances and contributing factors relating to the tragic death of little Ava.

3. A brief was prepared for the Coroner by the investigating police officer, Detective Senior Constable Cameron Pye, comprising witness statements and scene examination materials and further research was conducted for the Coroner by the Coroners Prevention Unit (CPU)[1]. Whilst I do not refer to all of the material herein, I have considered this material in reaching my finding in this matter.

BACKGROUND AND CIRCUMSTANCES

4. Ava was two years and two months old at the time of her death. She resided with her loving parents at the family home in Metropolitan Melbourne. Ava was a happy, well-adjusted child who had not experienced any serious medical conditions. Ava had met all of the usual

[1] The Coroners Prevention Unit ('CPU') is a specialist service for coroners established to strengthen their prevention role and provide them with professional assistance on issues pertaining to public health and safety.

childhood milestones and was within the normal range of physical and cognitive development for her age.

5. From birth until the age of two years, Ava slept in a cot, which was then converted to a toddler bed by removing the side panel. After returning from a family holiday, Ava's mother noticed that the family pet had soiled the toddler's bed. Subsequently, the family purchased a new bed for Ava from an online supplier of nursery and children's products, Incy Interiors Pty Ltd.

6. The bed was described as a 'Mae King Single Bed' and it was marketed in a manner that suggested its suitability for toddlers.[2] At the time of the purchase the Mae King Single Bed was from the supplier's first shipment of this style of bed.[3]

7. The bed comprised a tubular metal headboard and footboard connected to a mattress frame set at a height 45cm from the ground. A mattress was also purchased. The mattress measured 23cm in height. The total height from the top of the bed to the ground was 68cm. Ava was 95cm tall.[4]

8. To prevent Ava from falling out of the bed, a temporary bed rail was affixed to the left hand side of the mattress frame. According to her mother, Ava transitioned to her new bed on Saturday 22 September 2012 and experienced no sleeping difficulties.

CIRCUMSTANCES OF THE INCIDENT

9. On Saturday 6 October 2012, Ava's mother put Ava to bed at approximately 8:00 p.m. She then returned to the living room, closing the hallway door behind her as the television was on. A short time after putting her to bed, Ava's mother reported hearing a noise from her daughter's room.

10. There was nothing unusual or untoward about the noise and it did not suggest Ava was jumping on the bed or had moved out of the bed. Ava's mother attributed the sound to the normal noise made by a toddler settling for sleep.

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[2] Extract from Incy Interiors website, Appendix A to this Finding.

[3] Exhibit 1, Statement of Ms Kristy Withers, Director Incy Interiors Pty Ltd dated 25 October 2013 at page 1.

[4] Exhibit 2, Forensic Pathologist Report dated 23 April 2013 at Page 6.

11. At approximately 9:00 p.m., Ava's mother entered her daughter's room to check that the room temperature was not too hot. She noticed the bed covers were pulled back and could not see Ava in the bed or on the floor beside the bed. She turned on the light and located Ava standing in the right hand corner of the bottom of the bed with her hands by her side and feet on the ground. Ava's neck was resting on the horizontal bar of the bed's footboard.

12. She observed a mark across Ava's throat and removed her from the bed. Ava's mother described that Ava's head was entrapped between the bed end tubular steel rail and the mattress. Her neck was resting across the bed frame and her mouth was above the mattress. In order for her to extricate Ava, it was necessary to tilt Ava's head to remove it from inside the bed end.

13. Emergency services were contacted immediately and provided instructions to Ava's mother to commence resuscitation measures. Shortly thereafter Metropolitan Fire Brigade Officers arrived and commenced Cardiopulmonary Resuscitation. A MICA Paramedic attended and assumed responsibility for further resuscitative efforts with the assistance of other Ambulance Paramedics and MFB. Resuscitation efforts continued for approximately 45 minutes, however Ava could not be revived. Ava and her parents were transported via Ambulance to the Royal Children's Hospital where she was confirmed as being deceased.

FORENSIC MEDICAL AND SCIENTIFIC INVESTIGATION

14. An autopsy was conducted by Dr Yelina Baber, Forensic Pathologist at the Victorian Institute of Forensic Medicine. Dr Baber commented:

> "I am of the opinion that the cause of death in this two year old girl is positional asphyxia. Although post mortem findings were negative, the circumstances described and information provided are consistent with positional asphyxia. The bruising on the left side of the neck and that identified on reflection of the scalp would be consistent with the head being in the position described by Ava's mother."

15. No natural disease had been identified which may have caused or contributed to death. Dr Baber reported that the medical cause of death was Positional Asphyxia. Toxicology was negative and a radiological survey identified no evidence of unexpected skeletal trauma.

16. Police attended and examined the scene. Police photographed and took measurements of the Mae King Single Bed and noted the following:

- Photograph 24: the 155mm gap between the bottom and top bed rails where Ava was trapped
- Photograph 26: the 450mm distance between the floor and the base of the bed
- Photograph 27: the 670mm distance between the floor and the bottom bar of the bed rail where Baby Ava caught her neck
- Photograph 32: the 165mm gap between the vertical bed rails

17. Detective Senior Constable Pye stated that the most likely scenario was that while in a face down position, Ava moved her body, feet first, through a 15.5cm gap in the footboard of the bed between the bottom horizontal rail (at the height of the mattress) and the top horizontal rail. Whilst Ava's body was small enough to pass through this gap, her head was not and became trapped. This resulted in positional asphyxia.

18. Detective Pye's conclusions were based on an examination of the scene including of the bed and the bed end tubular railings. Investigation into the design of the bed and its profile revealed that the Mae King Single Bed end tubular railings design incorporates horizontal gaps (15.5cm) and vertical gaps (16.6cm) which are in the hazardous range for head entrapment for children as specified in standards relating to cots and bunk beds[5].

19. However the Mae King Single Bed falls outside the scope of the product safety standards as it is neither a 'bunk bed' or a 'household cot' as defined and is essentially a single king bed of adult design proportions.

20. I accept Detective Senior Constable Pye's analysis of the circumstances in which the death was caused and I am satisfied it is consistent with the findings of the forensic pathologist upon examination.

21. I am satisfied that no further investigation is required and that there were no suspicious circumstances connected to the death.

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[5] See paragraph 19 herein.

22. I find that death was a result of Ava becoming trapped in the bed end of the Mae King Single Bed and that the design features of the bed were a contributing factor to the death.

23. I find that Ava died on 6 October 2012 and that the cause of her death was Positional Asphyxia.

COMMENTS

Pursuant to section 67(3) of the *Coroners Act 2008*, I make the following comment(s) connected with the death in relation to public health and safety:

Responsiveness of the retailer supplier to advice of product concerns

24. Prior to the inquest, the supplier, Incy Interiors Pty Ltd, was advised by the court of information available to the Coroner which suggested that the Mae King Single Bed may be hazardous to young children, in particular by a possible entrapment hazard and encouraged to take immediate measures to alert purchasers of this hazard.

25. The supplier acted promptly upon receipt of the request and responded that the following action had been taken[6]:

    - Reference to 'toddler height' was removed from the product description on all metal beds and 'not recommended for toddlers' was added.
    - Infant & Nursery Products Association of Australia (INPAA)[7] were consulted to redesign the product to meet the requirements of the Australian Standard for household cots (AS/NZS 2172:2003). In particular, all vertical gaps were reduced to between 5cm and 9.5cm eliminating the risk of head entrapment.[8] The revised beds are in production and due to arrive in January 2014.
    - Warning labels were added to boxes of all existing stock.

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[6] Statement of Ms Kristy Withers, Director Incy Interiors Pty Ltd dated 25 October 2013.

[7] INPAA is a private body in the Australian nursery products industry with the stated objectives of the development of safer nursery products and promoting safe consumer use of products.

[8] Attachment A to the Statement of Ms Kristy Withers, Director Incy Interiors Pty Ltd dated 25 October 2013.

- All existing purchasers were notified that the beds are not recommended for toddlers.

26. Despite the action taken by the supplier in this instance to reduce the product risk in future, a gap remains in the regulatory framework that warrants further action to address entrapment hazards that may be present in other bed products sold, marketed or purchased for the use of toddlers and young children.

Product safety issues with adult sized beds being used, marketed or purchased for use by toddlers and young children

27. It does not appear that there are any product safety standards addressed to entrapment hazard in beds (in particular footboards or headboards) which may be used by toddlers or young children. The only existing product safety standards for child sleeping environments addressing entrapment hazards are for Household Cots[9] and Bunk Beds[10].

28. These provide as follows:

- Australian Standard AS/NZS 2172:2003 in relation to Household Cots requires that the space between bars or panels of household cots should be between 50mm/(5cm) and 95mm/(9.5cm), as gaps greater than this create an entrapment hazards.[11]
- Similarly, Australian Standard AS/NZS 4220:1994 in relation to Bunk Beds, states that it is important that gaps in bunk beds are a size that minimises the chance of children becoming trapped in them by their heads. Specifically, AS/NZS 4220:1994 states that gaps must not be between 95mm/(9.5cm) and 230mm/(23cm).[12]

29. It appears that there are no consumer product safety standards or advisory notices (mandatory or voluntary) that exist to address or identify the existence of entrapment hazards in the design

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[9] Australian Standard AS/NZS 2172:2003.

[10] Australian Standard AS/NZS 4220:1994.

[11] Australian Competition and Consumer Commission, *Find out more: Keeping baby safe. A detailed guide for consumers*, ACCC: Canberra, 2013, p.31.

[12] Australian Competition and Consumer Commission, *Bunk beds: supplier guide*, ACCC: Canberra, p.4.

of adult sized beds, irrespective of whether they are used by, designed for and/or targeted for use by children.

30. In making purchasing decisions or using adult sized beds for toddlers and young children parents should be aware of the standards applicable to bunk beds and cots and apply them to any bed to be used by a toddler or young child.

31. Whilst I recognise that it is difficult to apply standards to what are ostensibly adult or teenage products which may be used across the board for all ages, including toddlers and young children, at minimum a warning label ought be applied where the rails, bed ends and bed heads do not meet cot or bunk bed standards.

32. In this regard the adoption of a Product Safety Framework, providing generic or horizontal standards in relation to any children's bedroom furniture based upon the risk (in this case entrapment) rather than the product, may assist in enabling parents (and suppliers) to identify the possible risks associated with certain designs.

33. The CPU prepared a comprehensive analysis of the safety standards and regulatory bodies associated with children's and nursery furniture products and identification of relevant standards from which I have been assisted. I have included in or appended to this Finding some extracts of this information.

RECOMMENDATIONS

Pursuant to section 72(2) of the *Coroners Act 2008*, I make the following recommendation(s) connected with the death:

1. That the Minister for Consumer Affairs through the Department of Consumer Affairs immediately issue a warning to parents that in making purchasing decisions or using adult sized beds and bed ends for toddlers and young children that entrapment may be an issue.

2. That at point of sale all single beds ought be required to carry a warning as to suitability for use by toddlers and young children with particular reference to entrapment hazard and that the responsible authorities at Federal and State level take immediate steps to institute such a requirement.

3. That the same product safety design standards applicable to bunk beds and cots be required to be applied in the manufacture and design of any bed designed or marketed or sold for use by toddlers or young children.

PURSUANT TO SECTION 18(2) OF THE *OPEN COURTS ACT 2013*, I ORDER THAT THE FOLLOWING NOT BE PUBLISHED ON THE INTERNET

Compliance with the suppression order as to identity is required.

Any material identifying the full name, residential address or residential suburb of Ava or Ava's parents must not be published.

I direct that a copy of these findings and recommendations be provided to:

The Minister for Consumer Affairs Victoria

The Secretary, Department of Consumer Affairs Victoria

The Family of Ava

The Investigating Member, Victoria Police

The Managing Director, Incy Interiors Pty Ltd

The General Manager, Product Safety Branch, Australian Competition & Consumer Commission

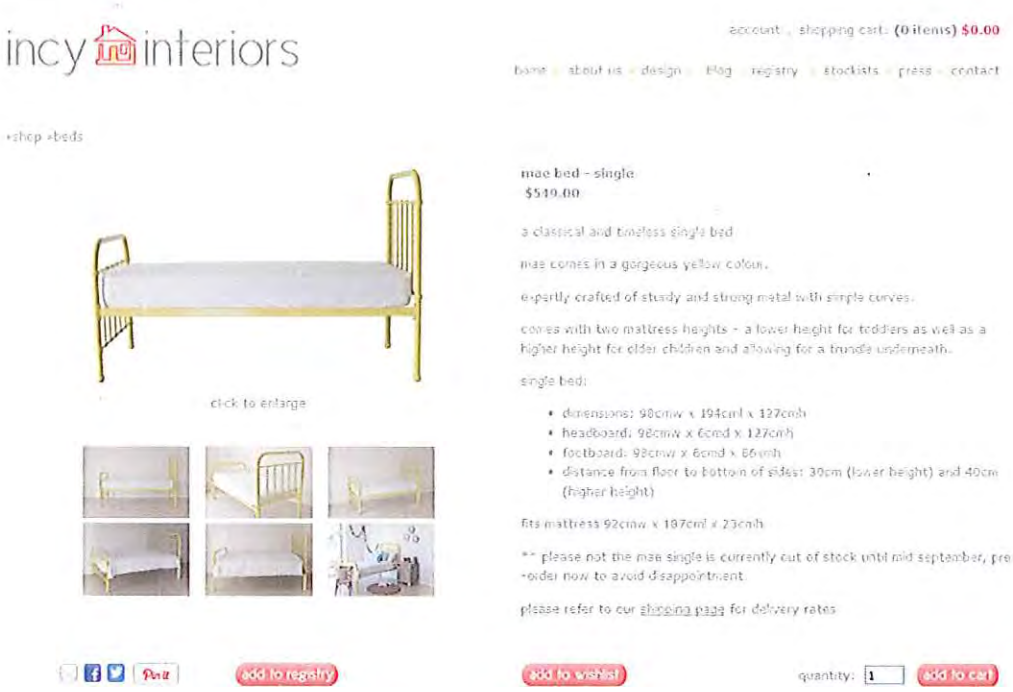
The Director, Infant & Nursery Products Association of Australia (INPAA)

The Chief Executive Officer, Standards Australia

Signature:

K. M. W. PARKINSON
CORONER
Date: 5 December 2013

Appendix 1



Source: http://www.incyinteriors.com.au/

Accessed: 17 September 2013

Appendix 2

Standards Australia Limited ABN 85 087 326 690
Level 10, 20 Bridge Street, Sydney NSW 2000
Telephone +61 2 9237 6000 Facsimile +61 2 9237 6010
www.standards.org.au

STANDARDS Australia

COMMITTEE TERMS OF REFERENCE

COMMITTEE NUMBER:	CS-003
COMMITTEE NAME:	Safety requirements for children's furniture
PMG APPROVAL DATE:	

1. Scope (Area of Activity)

Standardization in the field of cots and other types of furniture designed to be used by children

2. Inclusions and Exclusions to Scope

Included:

Excluded:

3. Liaison

To Liaise with and report as required at appropriate stages to:

- Technical Committee(s)
- Standards Coordination Group(s)
- Standards Sector Board(s)

4. Standards Sector

5. Participation in International Standardisation

Participation in the work of International Technical Committees, Subcommittees and Working Groups, including:

Special Functions (as approved by Standards Australia)

Source: http://sdpp.standards.org.au/ActiveProjects.aspx?SectorName=Consumer Products and Services and Safety&CommitteeNumber=CS-003&CommitteeName=Safety Requirements for Children#simple5

Accessed: 17 September 2013

Appendix 3

Standards Australia
Information in fields should be filled in if known or left as is.

Product Safety Framework

Part Title:	Gaps and openings Head entrapment and fall through hazard
Designation:	HB 295.3.23—2007
Part Number:	3.23
Supersedes Standard No:	Click here and type Superseded Standard Number
AustralianORJoint:	Australian
Creation Date:	2006-08-01
Revision Date:	2007-10-04
Issue Date:	FEBRUARY 2007
Committee Number:	ZZ-002
Committee Title:	Click here and type Committee Title
Subcommittee Number:	Click here and type SubCommittee Number
Subcommittee Title:	Click here and type SubCommittee Title
Project Manager:	James Thomson
PMs Email Address:	James.thomson@standards.com.au
WP Operator:	Mark Bezzina
Project Number:	7836
Combined Procedure?:	NO
Committee Doc No.:	ONE Alpha followed by FOUR numerical (eg: N9999)
Stage:	PUBLICATION
Committee Reps:	Click here and type committee reps using shift return for new line
Additional Interests:	Click here and type organisation names using shift return for new line
Product Type	HB
Document Status	Current
Document Availability	Private
WP OPERATOR NOTE:	Figure 1 is located in Proj 7836\Latest eps 11/9/07\R50.1, please rename the figure no. later. – Angela Tse

Final Publication

Date Approved:	2 February 2007
Date Approved by SNZ	Click here and type Date approved by SNZ
Final Publication Date:	Click here and type Date published
ISBN:	0 7337 8089 X
ICS Code:	Click here and type CS Code
Synopsis Publication	Part 3 of a three part Handbook that establishes a Product Safety Framework that is designed to enhance the safe supply, sale and use of products. It provides a verification process that allows for validation. It thus provides a generic hazards-based approach rather than focussing on specific products.
History:	First published as HB 295.3.23—2007.

Australian Handbook

HB 295.3.23—2007

Product Safety Framework

Part 3.23: Gaps and openings Head entrapment and fall through hazard

AIM

This Part of the PSF applies to any product which may have a gap or opening in it.

The intent of this Part is to minimize the possibility of a user of the product having their head or neck caught or trapped in openings which may exist on products which they can reasonably be expected to come into contact with.

A dangerous situation may occur if a user's head can be inserted into a gap or opening in a product and can either become entrapped or only removed with force resulting in some damage, trauma or even death, or if the user can possibly pass through the product which in certain circumstances could result in a fall through hazard.

The Part suggests a measurement range for dangerous openings and for those gaps which are relatively safe and requires the use of a probe and a use of force.

This GRM does require technical expertise. This means that it does require specialized qualifications, skills, training and/or equipment or facilities to determine compliance.

PREFACE

AS/NZS 2172:2003, *Cots for household use – Safety requirements*, defines gaps which constitute a head entrapment or fall through hazard. The size of these gaps is based on anthropometric data as well as the findings of enquiries into fatal cot accidents. These same gaps have been incorporated into the requirements and test procedures of this GRM. The intention is to reduce the possibility of injury to the user by ensuring that there are no gaps within the product where a user's head may become entrapped or which could allow a user to fall through.

This GRM is a constituent part of the Product Safety Framework process. It is intended to be used in conjunction with HB 295.1.

REQUIREMENTS

R1 GAPS AND OPENINGS HEAD ENTRAPMENT AND FALL THROUGH HAZARD

Hazardous gaps and / or openings must not be present when tested in accordance with T1.

If a 95mm probe will pass through a gap using a force of 100N then the gap is considered to be a head entrapment or fall through hazard

See Figure 1.

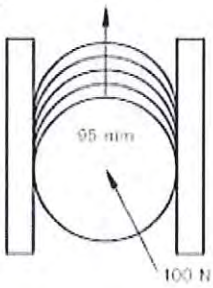


FIGURE 1 HAZARDOUS HEAD ENTRAPMENT AND FALL THROUGH OPENINGS

TEST PROCEDURES

T1 GAPS AND OPENINGS HEAD ENTRAPMENT AND FALL THROUGH HAZARD

T1.1 Scope

This section provides a method for testing a product for head entrapment or fall through hazards posed by gaps within the product in order to ensure compliance with R1.

T1.2 Principle

A probe is introduced into gaps within the product and a force is applied to the probe to ascertain whether the gaps pose entrapment or fall through hazards.

Gaps of 95mm or larger are considered dangerous as far as head entrapment or fall through of a user are concerned. In this regard a 95mm diameter probe is used to find gaps in the dangerous range.

T1.3 Apparatus

The following apparatus is required:

(a) A spherical probe made of suitable rigid material having a diameter of 95 ± 0.5 mm.

(b) The probe may be mounted on a rod of diameter not greater than 15mm for the purpose of applying the specified force.

(c) A means of applying a test force of 100±2.5 N.

T1.4 Test conditions

Immediately before testing, the product shall stand for at least 24h in a standardized atmosphere at a temperature of 23 ± 2°C and a relative humidity of 50±5%.

T1.5 Procedure

The procedure shall be as follows:

(a) Where applicable, assemble the product in accordance with the manufacturer's instructions.

(b) Identify all gaps which are accessible within the product.

(c) To each of the gaps, insert the 95mm diameter probe and apply a force of 100 N in an effort to force the probe through.

(d) If possible, assemble the product in another arrangement, and repeat Steps (b) and (c).

NOTES:

1 To ensure that the product will perform satisfactorily under possible misuse, the product is to be tested in all likely modes of assembly irrespective of whether the manufacturer intended the product to be assembled in that mode.

2 The requirements of Note 1 above do not apply where the manufacturer has:

(i) identified that mis-assembly of the product can produce a potential head entrapment or fall through hazard which can not be eliminated by functional changes in design or can not be guarded against; and

(ii) an appropriate safety warning label or marking has been developed and incorporated into the design of the product.

T1.6 Results

If in accordance with Item (c) of Clause T1.5 above any gap allows the insertion of the 95mm probe then it constitutes a head entrapment or fall through hazard.

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

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Printed in Australia

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