CITATION:	*Inquest into the death of Jade Marie Lange-Loades, Rory Duncan Lange-Loades and Nathaniel Jake Rose*
TITLE OF COURT:	Coroner's Court
JURISDICTION:	Darwin
FILE NO(s):	D008, 9 and 10/2003
DELIVERED ON:	1 October 2004
DELIVERED AT:	Darwin
HEARING DATE(s):	6,7,8,and 9 September 2004
FINDING OF:	Ms Elizabeth Morris, Deputy Coroner

CATCHWORDS:

CORONERS: Inquest, motor vehicle accident, load restraint, investigation, Accident Investigation Unit

REPRESENTATION:

Counsel:

Assisting:	Ms Sally Sievers
Shaws Transport:	Mr Kelvin Currie
Hastings Deering	Ms Judith Kelly
NT Police, NT WorkSafe and Department of Infrastructure Planning and Environment	Mr Mark Johnson
Mr Knott	Mr David Dalrymple

Judgment category classification:	B
Judgement ID number:	[2004] NTMC
Number of paragraphs:	
Number of pages:	

IN THE CORONERS COURT
AT DARWIN IN THE NORTHERN
TERRITORY OF AUSTRALIA

No's. D008,9,10/2003

In the matter of an Inquest into the death of

JADE MARIE LANGE-LOADES
RORY DUNCAN LANGE-LOADES
AND NATHANIEL JAKE ROSE
ON 22 JANUARY 2003
AT THE EDITH RIVER BRIDGE, STUART HIGHWAY, NORTHERN TERRITORY

FINDINGS

(Delivered 1 October 2004)

Ms Elizabeth Morris, Deputy Coroner:

The nature and scope of the inquest

1. At about 4.30pm on Wednesday the 22nd of January 2003 Michelle Rose was driving south on the Stuart Highway. In the car were her three children, Jade, Rory and Nathaniel. She had just picked up Rory and Jade, who were returning home after visiting their father in Adelaide. Near the Edith River Bridge, her vehicle hit a metal plate on the roadway. The vehicle slid out of control, due to a punctured left rear tyre from the metal plate. The vehicle rolled, the roof striking rocks near the river. It continued toward the river, stopped briefly by a sapling on the riverbank. The current of the river washed the vehicle off the sapling and began to carry it down stream. Mrs Rose could not open her door due to the crush damage to the car. She knocked out the driver's window, and reached for her son. Rory, who was beside her. Mrs Rose got out the driver's side window, and held the hands of Rory in an attempt to get him between the crushed roof and console. Without warning, the vehicle suddenly went vertical, nose down, and sunk under the water, taking all three children with it. Mrs Rose attempted to

dive for the vehicle but was unable to find it. The children were unable to be rescued, and subsequently drowned. Their deaths, being the result of an accident, were reported to the Coroner pursuant to s12(1) of the *Coroners Act* ("the Act"). Pursuant to my discretion under s15(2) of the *Act*, I held an Inquest into the deaths of the deceased.

2. Section 34(1) of the *Act* details the matters that an investigating coroner is required to find during the course of an inquest into a death. The section provides:

> "(1) A coroner investigating –
>
> (a) a death shall, if possible, find –
> (i) the identity of the deceased person;
> (ii) the time and place of death;
> (iii) the cause of death;
> (iv) the particulars needed to register the death under the *Births, Deaths and Marriages Registration Act*; and
> (v) any relevant circumstances concerning the death; …

3. Section 34(2) of the *Act* operates to extend my function as follows:

> "(2) A coroner may comment on a matter, including public health or safety or the administration of justice, connected with the death or disaster being investigated."

4. The duties and discretions set out in subsections 34(1) and (2) are enlarged by s35 of the *Act*, which provides as follows:

> "(1) A coroner may report to the Attorney-General on a death or disaster investigated by the coroner.
>
> "(2) A coroner may make recommendations to the Attorney-General on a matter, including public health or safety or the administration of justice connected with a death or disaster investigated by the coroner."

5. The public Inquest in this matter was heard at the Darwin Magistrates Court on 6,7,8 and 9 September 2004. Counsel assisting me was Ms Sally Sievers.

Mr Kelvin Currie sought and was granted leave to appear and represent Shaw's Transport, Ms Judith Kelly sought and was granted leave to appear and represent Hastings Deering, Mr David Dalrymple sought and was granted leave to represent Mr Raymond John Knott, and Mr Mark Johnson sought and was granted leave to represent the Northern Territory Police, NT WorkSafe and the Department of Infrastructure, Planning and Environment. The deceaseds' mother and Nathaniel's father were in attendance throughout the proceedings.

6. Evidence was called from police officers Robert Lovell, Russell Ruehland and Anthony Williams. Civilian witnesses included Mr Jamie Downs, Mr Matthew Possingham, Mr George Brown, Mr Jeffrey Hosie, Mr Phillip Tilbrook, Mr Maurie Thwaite, Mr Brett Hawkings, Mr Raymond Knott, Mr David Bailey, Mr Andrew Wood, Ms Sharon Crowhurst, Mr Geoffrey Cook, and Mrs Michelle Rose.

7. Over 30 exhibits were tendered including the investigation brief prepared by Senior Constable Robert Lovell, and three grouser plates.

Formal findings

8. The mandatory findings pursuant to s34(1) of the *Act* are as follows:

Jade Marie Lange-Loades

(1) The identity of the deceased was Jade Marie Lange-Loades, born the 4th of May 1994 at Queen Victoria Hospital, Rose Park.

(2) The time and place of death was shortly after 4.30pm on the 22nd of January 2003 at the Edith River Bridge, Stuart Highway, in the Northern Territory of Australia.

(3) The cause of the death was drowning as the result of a motor vehicle accident.

(4) The particulars required to register the death are:

(i) the deceased was female;

(ii) the deceased was Caucasian;

(iii) the death was reported to the Coroner;

(iv) the cause of death was confirmed by post-mortem examination;

(v) the cause of the death is as described in paragraph (3) above;

(vi) the pathologist viewed the body after death;

(vii) the pathologist was Dr Terence John Sinton of the Royal Darwin Hospital;

(viii) the father of the deceased was Malcolm Keith Loades and the mother was Michelle Kathryn Lange;

(ix) the usual address of the deceased was Florina Road, Rowlands Quarries; and

(x) the deceased was a child.

Rory Duncan Lange-Loades

(1) The identity of the deceased was Rory Duncan Lange-Loades, born the 22nd of December 1995 at Tanunda District Hospital, Tanunda.

(2) The time and place of death was shortly after 4.30pm on the 22nd of January 2003 at the Edith River Bridge, Stuart Highway, in the Northern Territory of Australia.

(3) The cause of the death was drowning as the result of a motor vehicle accident.

(4) The particulars required to register the death are:

(i) the deceased was male;

(ii) the deceased was Caucasian;

(iii) the death was reported to the Coroner;

(iv) the cause of death was confirmed by post-mortem examination;

(v) the cause of the death is as described in paragraph (3) above;

(vi) the pathologist viewed the body after death;

(vii) the pathologist was Dr Terence John Sinton of the Royal Darwin Hospital;

(viii) the father of the deceased was Malcolm Keith Loades and the mother was Michelle Kathryn Lange;

(ix) the usual address of the deceased was Florina Road, Rowlands Quarries; and

(x) the deceased was a child.

Nathaniel Jake Rose

(1) The identity of the deceased was Nathaniel Jake Rose, born the 4th of August 2000 at Barossa Area Health Service, Tanunda.

(2) The time and place of death was shortly after 4.30pm on the 22nd of January 2003 at the Edith River Bridge, Stuart Highway, in the Northern Territory of Australia.

(3) The cause of the death was drowning as the result of a motor vehicle accident.

(4) The particulars required to register the death are:

(i) the deceased was male;

(ii) the deceased was Caucasian;

(iii) the death was reported to the Coroner;

(iv) the cause of death was confirmed by post-mortem examination;

(v) the cause of the death is as described in paragraph (3) above;

(vi) the pathologist viewed the body after death;

(vii) the pathologist was Dr Terence John Sinton of the Royal Darwin Hospital;

(viii) the father of the deceased was David William Rose and the mother was Michelle Kathryn Rose (nee Lange);

(ix) the usual address of the deceased was Florina Road, Rowlands Quarries; and

(x) the deceased was a child.

The Children

9. All three children were much loved members of the one family. They were extraordinarily special people to their parents, to their extended family, and

to their friends and neighbours. Mrs Rose gave evidence before me in relation to their personalities and the contribution they made to family life. She spoke of the silence that is life without them. Their death has affected deeply many people who had come to know them over their lives, and even many who had not.

The Accident

10. Mr Raymond John Knott is an owner/driver of a road train that had been running between Darwin and Perth for about five years prior to the accident. His truck, a Mack Titan, is registered in Western Australia, as is his first and second trailer.

11. On the morning of the 22nd of January 2003, Mr Knott completed loading his truck for a return trip to Perth. The load consisted of a bulldozer, (on the front trailer), a shipping container at the rear of the second trailer, and bulldozer blades loaded in the centre of the second trailer. Drill rods were also on the front right of the second trailer, as were three pallets of excavator track plates, or "grouser" plates. A Shaw's Transport driver had picked up the track plates from Hastings Deering in Darwin, and returned to Shaw's yard. The driver had then loaded them onto Mr Knott's truck. One pallet was loaded on the right rear of the trailer in front of the container, another on the left rear in front of the container and a third on the left front of the trailer.

12. Mr Knott left Darwin around midday. Sometime in the next three or so hours, he and his vehicle passed over the Edith River Bridge on the Stuart Highway. He did not stop at any stage prior to Katherine.

13. At about 1.00pm that day, Mrs Rose and the children began their drive back to Katherine. As they reached the Edith River Bridge, their vehicle, a 2000 Ford Falcon station wagon, registered in the Northern Territory, struck a metal plate. At the time they were travelling at about 120kph, on the speed

unrestricted road. The corner of the plate punctured the left rear tyre with sufficient force to blow the tread off the tyre. The corner then penetrated the steel rim making a split. It then struck the disc rotor, causing it to buckle, and knocking a piece out of it.

14. The vehicle then began rotating clockwise whilst sliding across the right hand lane. After reaching the erosion strip that separates the north and southbound bridges, the vehicle travelled through the air and rolled, striking the rocks and crushing the roof. After crushing a sapling, the vehicle then washed into the river, where it suddenly up-ended, and sank to the bottom.

15. The movement of the car after it hit the plate has been mapped and reconstructed by the investigators and reflected in the map (exhibit 12) and is also described in the statement of Mrs. Rose.

16. From the evidence I am satisfied that the tyre damage on Mrs Rose's vehicle was caused by a metal plate, being a "grouser plate". I accept the evidence of Constable Lovell in this regard. Photos 43 to 51 illustrate and support this finding. No other object was found in the vicinity which could have explained the damage to the car. The evidence is that, despite investigation at trucking companies, and industrial machinery suppliers, no other similar plates were being transported around the Territory at that time. Given, that, and the other evidence of the loosening of Mr Knott's load, I am also satisfied that this grouser plate came from the truck loaded with such plates, driven by Raymond John Knott, passing through the area on the 22nd of January 2003. However because of the manner in which the plates were collected it cannot be ascertained precisely which of the three plates collected and exhibited did the damage.

17. After Mrs Rose was unable to find the vehicle, she went up to the roadway to seek help. She flagged down Mr and Mrs Buss, from Katherine. Just prior to this they had moved lanes in their vehicle to avoid objects on the road. After learning what had happened, Mr Buss drove from the scene in

order to get reception for his CDMA phone, Mrs Buss remained with Mrs Rose. Mr Buss was able to contact 000 some 15 km from the accident, and then returned to the bridge.

18. Constable Anthony Williams and Sergeant Chris Bentham were the first police to attend. They had been at another accident on the Stuart Highway when they received the notification. Constable Williams drove directly to the accident in one vehicle, with Sergeant Bentham following. Upon arrival Sergeant Bentham was advised that the vehicle had been underwater for twenty-six minutes. He took a rope from his car and using it to restrain himself, entered the water in an attempt to locate Mrs Rose's car. He noted that the current was fast and the water was brown with no visibility. He was unable, despite diving, to find the car, as was Constable Williams, who had also dived into the water. Other police and fire service members attended.

19. A team of Territory Response Group divers were notified at about 5.30pm of the accident. They were in Darwin, and after preparation, left Darwin at about 6.30pm, arriving at around 9.10pm. They were advised of the position of the vehicle, it being located prior to their arrival by NT Emergency Services. Sergeant Charles Rue was the officer in charge of this group. After assessing the situation, and setting up a harness system, Sergeant Rue dived in to the river at 9.40pm. The current was running at 1-2 knots, there was no visibility. The operation was difficult and dangerous. One by one he removed the children from the vehicle. Both Nathaniel and Jade were still wearing their seat belts.

20. From the evidence I find that there was nothing further that Mrs Rose could have done to save the lives of her children. Her endeavours were desperate and extraordinary. Given the flow of the river, the damage to the vehicle and the depth of the water there was nothing a sole person could have done to get the children out.

21. Officer Williams gave evidence before me of his involvement. He told of attempting to search for the vehicle in the river, and after realising it was fruitless, ensuring that the result was conveyed to Mrs Rose. His commitment on behalf of NT Police to "look for them like they were our own" was a compassionate promise to a woman whose only hope left was that her three dead children's bodies would be recovered.

22. I commend the actions of those who arrived and assisted, especially the actions of Sergeant Bentham, Constable Williams, and Sergeant Rue and the other police divers. I also commend Mr and Mrs Terry Buss, who sought police assistance, and attempted with compassion to care for Mrs Rose.

The Preparation of the Pallet

23. The grouser plates, which belong to National Geographe, had been at Hastings Deering's yard at Goyder Road for approximately two and a half years prior to January 2003. The plates had come from a caterpillar excavator 320 model and were stored in the same area as caterpillar excavator plates from a 325 model.

24. In January 2003 as Hastings Deering were moving from the Goyder Road site to a site at Wishart Road, contact was made with the owner for the plates to be removed. The workshop supervisor at Hastings Deering, Mr Colin George believed there were approximately 95 to 96 grouser plates off the 320, stored there.

25. On 21 January 2003, Jamie Downs, a truck driver of 15 years experience, employed by Shaw's Darwin Transport Pty Ltd (Shaw's), arrived at Hastings Deering to transport the grouser plates to Shaw's Darwin Transport. He refused the load because one of the pallets was broken and had loose strapping and another pallet also had loose strapping. He only saw the condition of two pallets before making his decision.

26. Mr Downs made his decision because of his previous experience at NQX Freight System, another company he had worked for. Their policy was to refuse a load if it was not sufficiently packed. He remained at Hastings Deering yard waiting for the load to be re-packed and restrapped, however after half an hour to an hour he left.

27. Hastings Deering workshop and warehouse (parts and service area) staff were aware that the load had been initially refused.

28. Jeff Hosie was the storeman in the warehouse at Hastings Deering at the time. Mr Hosie's evidence was that he was very busy and did not have time to attend to the work needed on the pallets. His observations of the pallets were that they were very messy, the large load (pallet three) was on a rotten pallet with one side decayed. He considered that the pallets needed to be restacked, as they were not neat and square.

29. The workshop area from where the pallets had come was asked to provide assistance with the restacking, and strapping and banding.

30. This arrangement was negotiated between the leading hand in the warehouse Philip Tilbrook and the workshop supervisor Colin George. Mr Tilbrook was aware that the pallets could not be dispatched as they were, and needed to be strapped. Philip Tilbrook was of the same view as Jeff Hosie, that the warehouse staff did not have the time or resources to do this job.

31. The task was finally allocated to George Brown, an apprentice diesel fitter who had been employed at Hastings Deering for two weeks at that time.

32. At around morning smoko on the 21st of January 2003, Mr Brown moved the three pallets from the backyard of Hastings Deering to the Dispatch area which is part of the warehouse area.

33. George Brown primarily sort assistance in what to do and how to use the strapping machine from Jeff Hosie.

34. Other areas of instruction are less clear, for example the number of bands that were to be placed around each pallet. Mr Hosie gave evidence that he instructed Mr Brown to put two bands over each way and one around the pallet and in his recorded conversation said “put 2 straps either way, 4 straps….” (pg 4/ 22) George Brown’s evidence was that he was instructed to place 2 each way, in total four, but in his record of conversation with police he says 3 one way and 2 the other so a total of 5 bands.

35. Jeff Hosie physically assisted George Brown with one and possibly two bands, placing them around the load and tensioning them. He also provided some advice about neatening up the pallets, squaring the grouser plates particularly the top two or so layers of one pallet, and moving swamp plates from the top of one pallet to another.

36. George Brown gave evidence before me that the pallet referred to through out the Inquest, as pallet one (shown in photos 37 to 39) was four /fifths re-packed by him. In his record of conversation to police he states he pulled them all off, and restacked them. The evidence of Jeff Hosie and Philip Tilbrook was that they believed George Brown just took the first couple of layers from the top of the pallet and restacked them.

37. There is no evidence that George Brown received instructions on how the restacking was to occur, other than to square them up. No instruction, in particular, was given as to interlocking the lugs. It appears from the evidence that this would have made the load on the pallet more stable. It is clear from the photographs of Mr Knott’s truck, that the grouser plates were not stacked with interlocking lugs.

38. The other pallet on which George Brown sort Jeff Hosie’s assistance was the pallet referred to during the Inquest as pallet three, situated on Mr Knott’s truck at the rear right in front of the container, and shown in photographs 25 to 32. It is the largest of the three pallets and has a pallet at the very bottom, which was observed in the Hastings Deering yard to be rotting and

collapsed. Jeff Hosie in turn spoke to his supervisor Philip Tilbrook regarding this pallet.

39. The decision was made by Mr Tilbrook to place it onto another pallet and to give it a “quick tidy up” and restrap it. There is some evidence that the pallet was not of sufficient strength or quality to bear the load that it had.

40. This action is contrary to Hastings Deering Warehouse Safety Policy (exhibit 17) which was part of the Hastings Deering Procedure Manual dated 5 December 1994. This policy requires that:

- High or unstable loads should be stacked in wire cages
- Broken or damaged pallets should be repaired or replaced.

41. According to this policy the broken pallet should have been replaced and not retained as part of the load and consideration given to the load on pallet three being placed in a wire cage.

42. George Brown’s evidence was that Jeff Hosie checked each pallet as it was completed, Jeff Hosie does not agree stating he was in the area but did not check each one.

43. George Brown’s and Jeff Hosie’s evidence as to the level of supervision differ. George Brown stated Jeff Hosie was more involved in the task and supervision of the task than Jeff Hosie gave evidence of or stated in his record of conversation with the police.

44. It is clear that when George Brown finished all three pallets, Philip Tilbrook checked them and determined that they were sufficiently well prepared. He described this as a “quick visual” a “20 second visual check” and that he “was happy at the end of it”.

45. Jeff Hosie gave evidence of his dissatisfaction with the completed pallets, and what he thought should have occurred. He stated that they needed two

people on the job for an hour or so to restack the pallets properly. The larger pallet (pallet three) needed to be reduced to smaller loads.

46. Mr Tilbrook in his record of conversation with police said with hindsight and the knowledge acquired since the incident, he would strip the pallets down and probably look at putting them in a pallet carton or even dividing the load in half.

47. Hastings Deering staff gave evidence that they had no training or experience in stacking this type of grouser plates onto pallets. They rarely sent used grouser plates out to customers or transported them generally.

Transport to Shaw's Darwin Transport

48. The three pallets were not picked up by Shaw's on 21 January 2004, and were moved to the backyard at Hastings Deering away from the dispatch area.

49. On 22 January 2004 Brett Hawkings, a truck driver of 15 years experience employed by Shaw's arrived at Hastings Deering at approximately 9.00am.

50. Matthew Possingham, the acting leading hand in the workshop, moved the three pallets from the backyard up to Mr Hawkings' truck by forklift.

51. Mr Possingham walked around the load and had a brief look to determine if it were ready to go. He had no major concerns with the load, but conceded that it was a "brief look" before he then took each of the three pallets to the truck to be loaded. He loaded each one onto the tray of the truck as directed by Mr Hawkings. He placed two against the solid headboard and one behind these.

52. Matthew Possingham did observe the larger of the three pallets (pallet three) enough to note when shown a picture of it taken in Port Hedland, that it was not in that condition (loose banding, gaps and general disarray) when he loaded it onto Mr Hawkings' truck.

53. Mr Hawkings secured them to the truck with one or possibly two webbed straps over the pallets.

54. Mr Hawkings returned to Shaw's Palmerston depot with the pallets and subsequently assisted Mr Knott to load the three pallets onto the rear trailer of Mr Knott's road train, trailer WA registration AUV-183. The rear trailer at that time also had on it a container, a wooden box, and bulldozer blades.

55. The three pallets were placed one at a time by Mr Hawkings onto the trailer, one on the left in front of the container (pallet two), one on the right in front of the container (pallet three) and one at the front left of the trailer up against the head gate (pallet one). Mr Hawkings assisted Mr Knott in placing a webbed restraint across each of the pallets; one restraint went across both pallets two and three, and then right across the trailer.

56. Mr Hawkings assisted in placing the black webbed strap across pallet one. However prior to this, the headgates and two gates on either side of the front trailer were put in place. The black webbed strap (seen in photographs 37 and 38) was then placed over each of the side gates.

57. Mr Hawkings observations of the pallets were that they looked tight and secure.

58. Mr Hawkings was sure that he did not help Mr Knott place the rear gates on the trailer. These gates are seen in place in photos 25, 26, 28, 33 and 34 taken in Port Hedland. The gates are on each side of pallet two and three and in front of the container. Mr Hawkings is sure these were not on as the road train left Shaw's yard. He had assisted in linking the train up and saw it depart the yard.

59. Mr Hawkings also gave evidence that if the gates had been put on before the load left the yard the restraining straps would be over the gates, rather than under them. Straps are generally not put on under gates as the gate over the top could damage the strap.

60. Mr Knott gave evidence to the contrary, saying that all the gates went on at the one time, he offered no explanation as to why the strap is under the rear gates and over the front gates.

61. Other drivers who gave evidence (Andrew Woods and Jamie Downs) were also of the view that straps or restraints usually went over gates and not under them.

62. I find that the gates at the rear of the second trailer were put on some time after the truck left Shaw's, Palmerston Depot, however I am unable to find when or why this was.

Other methods of securing a load

63. Evidence was given before me that by using ply up against the headgate or by placing the grouser plates in bins the load would have been safer and more secure.

64. Ply was available in Shaw's yard (a fact confirmed by other witnesses). Mr Knott's evidence was that the ply only came in one size sheet and would fly off with the wind pressure. His view was that ply was only used with side curtains and tarps.

65. Mr Knott however acknowledged the possibility of using another gate against the head gate in order to further secure a load.

66. Other truck drivers (Jamie Downes, Brett Hawkings and Andrew Woods) commented on the use of ply, and that it could be modified to fit requirements. Further that it can be used without it becoming a danger and that it is not just used when tarps are used.

67. The Shaw's documentation contained in exhibit 30 refers to the "extensive use of ply inside gates" to transport small or hard to secure items.

68. Further methods of securing the load were clearly available. However neither Mr Knott nor Mr Hawkings, both very experienced transport operators, considered that the load was unstable enough to warrant further securing.

Knott's Journey and Checking of loads on long haul trips

69. The road train driven by Mr Knott, a Mac Titan Prime Mover WA registration 9JK-017 with two trailers, a front trailer WA registration AWK-802, the second trailer WA registration AUV-183, left Darwin around midday on 22 January 2003 travelling down the Stuart Highway.

70. Mr Knott's evidence is that he drove through from Darwin to 80 or 90km before the Victoria River Road house without a tyre check or a check of his load, a journey of 600 to 700km taking six to seven hours.

71. The 1994 Load Restraint Guideline, which applies to all load-carrying vehicles including rigid trucks and trailers specifically provides:

> Checking the Load.
>
> "During a journey, certain loads can settle and shift, lashing can loosen, objects can become dislodged.
>
> During the journey, the driver should periodically check the load and its restraints to ensure that it cannot become dislodged.
>
> The amount of checking required depends on many factors, including the initial packing, the density and stiffness of the load and the flexibility both of the lashings and the vehicle loading deck.
>
> For example, rigid loads with flexible lashings require less frequent checking than soft loads with stiff lashings.
>
> In practice, some loads require the lashing to be checked and re-tensioned after only a few kilometres travel, whilst others require checking only during routine vehicle stops."

72. Further at page 48, there is a list of "do's and don'ts". Included in the "do's" is:

> "Do check your load before moving off and do check your load periodically and at routine stops such as tyre checks".

73. Drivers Andrew Woods, Jamie Downes and Brett Hawkings all gave evidence in regard to their practice and industry practice for checking loads.

74. Andrew Woods is a driver of long haul trucks and owner of a transport company. He is involved with the Australian Trucking Association and has 24 years experience. He stated most operators driving general freight loads stop at Noonamah, Batchelor Cutting or Emerald Springs. General freight drivers from Darwin stop earlier than Katherine as the load would settle. Stopping enables them to retension chains and perform other checks. He spoke about it being second nature for truck drivers to stop to check their load in regard to whether it had settled. Even if strapped tightly he would expect the type of load this truck had on to have settled. Mr Hawkings gave similar evidence.

75. Mr Knott's initial observations of his load are relevant to an assessment of the reasonableness or otherwise, of not checking his load between when he left Darwin and 80 to 90km before Victoria River Road House where he pulled up at dusk on 22 January 2004. He was carrying general freight and if he had any concerns about his load this would mean he should have checked his load more regularly than the general practise referred to by the other truck drivers above. Mr Knott also admitted that from the cabin he could not see his load past the bulldozer that was loaded onto the first trailer. Common sense would indicate that this was further reason to stop and physically check the rest of the load.

76. Mr Knott had both time and opportunity to observe the load, he was present throughout loading of each of the pallets, and he directed the positioning of the load. He was standing on the ground as the pallets were loaded. He was also involved in the restraining of the load.

77. Mr Knott assumed the three pallets were banded properly as Hastings Deering is a reputable company and he knew they were the Catepillar agents.

78. He gave evidence that he was aware from his previous dealing with caterpillar plates that they should have been interlocked (consistent with the evidence on the best practise heard during the Inquest). His evidence was also that the banding appeared new. This added to his general assumption that the plates were properly packed and stable.

79. Mr Knott gave evidence that he had a look at the pallets but did not investigate to see if they were packed properly. In his record of interview when asked:

> "Did you have any concerns about the way the pallets were loaded or banded?"
>
> Knott answered "I didn't take any notice".

80. Various reasons were proffered throughout the inquest, as to why he did not stop earlier to check his load. The police suggested that the Victoria River may have been rising, therefore making it impassable, or thought he was attempting to travel as far as possible in daylight under his permit. Mr Knott denied these suggestions.

81. In Mr Knott's record of interview (p4) he states that when he checked his load that night (22 January 2003) he noticed the bands had come loose.

82. The evidence given at the Inquest by Mr Knott was that he noticed the bands had become loose on the first night, however he didn't notice any gaps in the pallets or grouser plates until he stopped on the second night of his journey. He was not sure if the gaps were because grouser plates had moved or because one was missing. He stated he then adjusted the grouser plates as far as possible within the banding.

The police investigation

83. The police investigation was conducted by officers of the Accident Investigation Unit commenced on the evening of 22 January 2003. They arrived at the Edith River Bridge and collected two grouser plates from the road and a piece of disc rotor (exhibits 13 and 15). The grouser plates were not marked as to their position on the road.

84. The investigation resumed the next morning with an inspection of the vehicle recovered from the river. Investigators Lovell and Ruehland returned to the highway around the Edith River Bridge later that morning and took the measurements and photos included in the brief and which enabled the map (exhibit 12) to be constructed.

85. The investigation continued on 24 January 2003 when the officers returned to Darwin, and Senior Constable Lovell visited Hastings Deering to identify the grouser plates, which were later identified as being from a Caterpillar excavator 325 (not the type of plate Hastings Deering had been returning to National Geographe).

86. Phone contact was made with the identified driver Mr Knott on 22 January 2003 and arrangements were made for the road train to be videoed and photographed by WA Forensic police officer Ernest Churchman at Port Hedland, Western Australia. His statement, the video and photographs he took were made exhibits during the Inquest. He also seized a grouser plate from pallet three, the double pallet on the right rear of second trailer in front of the container. It was later identified as being from a Caterpillar excavator 320.

87. The video and photos taken at Port Hedland show pallet one with loose banding, the tie down being the only thing holding the load on and a further grouser plate coming forward through the headboard. Swamp plates were on top of the pallet. The banding was not square across the top of the grouser plates but formed a pyramid shape across the top of the load. The lugs on

the grouser plates were not interlocking and there were gaps in the stacking of the load.

88. Photos of pallet three show a broken or rotten pallet sitting on top of another pallet. The pallet is not stacked well, nor banded tightly, and is generally in disarray.

89. The investigators believed that pallet three was the one that had dropped the grouser plates on the road near the Edith River Bridge. This view was maintained for the next four months until Senior Constable Lovell realised that the offending pallet was pallet one.

90. Mr Knott pleaded guilty on 30 March 2004 to:

> "being the driver of a vehicle namely a Mack truck WA 9JK-017, towing two trailers including trailer WA 8UE-183, on a road, namely, Stuart Highway, carrying a load, namely excavator tread plates, failed to restrain the said load in a manner described in the publication titled "Load Restraint Guide".
>
> Contrary to regulation 24(a) of the Traffic Regulations.

91. He was fined $1500.

92. Various aspects of the investigation are of concern, including the length of time taken to prepare the brief and to take statements from staff of Hastings Deering. In addition the record of interview (such as it was) with Mr Knott was not conducted until 9 May 2003. This tardiness can only lead to a less than desirable standard of evidence, upon which I must base my findings.

93. The investigation did not explore the broader issues over and above the mechanics of the accident and the potential offences committed by the driver. No evidence was gathered of the responsibilities and systems of people or companies other than the truck driver. There was no evidence on the coronial file of the Hastings Deering systems and what they were at the time.

94. Further, in regard to Shaw's Darwin Transport there was no exploration of systems in place at the time. Evidence was elicited during the inquest that Frontline (the company that Shaw's had recently taken over) had been through a quality assurance program and that they had manuals on various issues and had load restraint guides in smoko rooms at the depot none of this material was contained in the Coronial file.

95. There was no statement from either Maurie Thwaite from Hastings Deering or Andrew Woods at Shaw's in regard to their initial assistance during the police investigation or in regard to the systems/procedure in place at either work place prior to the accident.

96. Mr Knott's record of interview was not corroborated. It was not recorded other than by in writing. The record of interview did not explore numerous areas of interest such as how the load was restrained, what the pallets looked like at the time of loading and details of checking of the load.

97. The record of interview was given to Mr Knott, which then resulted in him taking it away and an amended copy being returned to the police.

98. Senior Constable Lovell did seek some initial assistance from Sharon Crowhurst, a Senior Officer from NT WorkSafe in relation to whether she could assist him with any offences committed by the driver and the load restraint guide, however did not refer the matter to WorkSafe for their investigation and assistance.

99. Documents which were seized during the investigation did not make their way onto the file. This is particularly the consignment note from Shaw's.

100. Senior Constable Lovell was not aware of various powers under the Coroner's Act that would have assisted him in the investigation. To his credit, Senior Constable Lovell admitted deficiencies in the investigation, and that he was concentrating on the investigation with respect only to the prosecution of offences, rather than from a coronial viewpoint. Quite

properly, NT Police through their counsel conceded that the report was not submitted within the time frame required by police general orders, that the interview with Mr Knott should have been corroborated, that further witness statements ought to have been taken, and that Senior Constable Lovell should have been provided with appropriate advice and guidance from his superiors.

101. However I do not agree with Mr Johnson's submission that "the extent to which AIU, or any other section of NT Police, are required to investigate systemic issues is limited except where such inquiries are carried out in response to specific requests on the part of the Coroner." Police do have a dual role in relation to investigation of deaths. Various lines of inquiry can be directed by the Coroner, but it is also the duty of the investigator to follow lines of inquiry that would lead to sufficient evidence for the Coroner to perform their duties required by the Coroner's Act.

102. Assistant Commissioner Crime Support, Grahame Kelly, in a letter to the Territory Coroner, a copy of which was tendered at the Inquest, sets out the initiatives that NT Police have undertaken to address some of the deficiencies in the preparation of Coronial files, including developing the investigative capacity of members of the Accident Investigation Unit over time as well as other initiatives. These endeavours negate any recommendation I might otherwise have made in relation to quality and timeliness of coronial investigations.

Hastings Deering and Shaw's training and procedures

103. It is clear from the evidence that neither company had in place formal training in relation to load restraint prior to the accident. Further, and more relevantly, Hastings Deering did not have procedures or formal training in place in regard to the use of pallets, packing of pallets and banding of pallets for transportation at the time of the accident.

104. Similarly, Shaw's had no formal training in place to convey to workers the load restraint guide requirements except for having the document present at the depot at the time.

105. Both companies relied on more experienced staff conveying information on practises and procedures to junior or less experienced staff.

106. Hastings Deering actions since the accident, include a memorandum dated 29 January 2003 to all Hastings Deering Parts Managers "…to reinforce the need to ensure all parts consignments leaving Hastings Deering branches are packed or attached to pallets securely, and loaded safely onto transport vehicles".

107. Hastings Deering then sought to source training on the area of chain of responsibility and the load restraint guideline. Two agencies were involved in designing training. The formal training was delivered by Transqual National Logistics Training in the Darwin office of Hastings Deering in June 2004. Those who missed the formal **t**raining were required to undertake training by home study. The training has been compulsory not just in the local Darwin office but to staff nationally. This action is to be commended.

108. Hastings Deering identified after the assessment of the initial training that it did not address the basic issues of what goes on a pallet; how pallets are stacked and how they are to be banded. A document from Colin George (exhibit 24) sets out Hastings Deering commitment to further training in this area.

109. Hastings Deering also sought information from Caterpillar on how new pallets of various types of grouser plates are loaded and placed photographs from Caterpillar in the workshop and have discussed them at their toolbox meetings with the Service and Parts Department.

110. In the three months prior to the accident Shaw's Transport took over the company Frontline at their yard at Palmerston. The Frontline manger

Andrew Woods remained on the ground managing the Palmerston yard in the transition between 27 November 2002 to March 2003.

111. Andrew Wood stated that there were load restraint guides in the depot and general training at the depot but not a formal course or set down training. They paired more experienced staff with new staff.

112. The material produced by Shaw's states there is commitments to making sure loads are properly restrained. There is no evidence of training on the load restraint guides.

113. The changes since the accident include load restraint guides in every vehicle and more available in depots. More control is exercised over loading by the utilising of Shaw's own employees at every opportunity. Shaw's still rely on the process of transferring of information from more senior staff to more junior staff to educate junior staff in regard to load restraint.

114. Shaw's produced a Policy and Procedure Manual (exhibit 31) which contains a quality statement, training and development, fatigue and health and maintenance management policy.

115. Both Shaw's and Hastings Deering are to be commended for the efforts made since the accident, to improve their training and practice and procedures.

The Edith River Bridge approach guard railing

116. The outbound or low-level Edith River Bridge that Mrs Rose was approaching when the accident happened on 22 January 2003 did not have an extended approach guard railing. The history of the bridge is set out in the statements of Mr Wanka (exhibit 35) and Mr Cooke (exhibit 34) who also gave evidence. The bridge was constructed in 1972. At the time of the accident it only had a ski jump railing fitted. This was the standard at the time that it was added to the bridge in 1973.

117. The approaches to the bridge were identified during an audit in 1997 as being of important/medium risk. However other works were identified as being of higher priority.

118. A further report, completed after the accident in 2004 noted that modifications were necessary to the approach to the bridge. One of the precipitators for this report was the accident and death of the children. Despite the risk being assessed as relatively low

119. The measurements and calculations presented by Sergeant Russell Ruehland from the map (exhibit 12) and also provided by Department of Infrastructure, Planning and Environment (DIPE), make it clear that Mrs Rose's vehicle left the Stuart Highway some 24/25 metres before the Edith River Bridge guard rail commenced. Even if a standard length 24 metre guard rail had been installed, it may not have stopped the vehicle going into the river.

120. If the current extended railing of 48 metres, which was placed on the bridge in June 2004, had been present the vehicle may not have entered the Edith River. Had the vehicle hit a guardrail at speed, however, other damage to the vehicle and injury to the occupants would have occurred. It is not possible to speculate the severity of that damage.

121. Given that the bridge guard approach railing has been extended since the accident, no recommendation to that effect is necessary.

Conclusions and Recommendations

122. The tragic deaths of Jade, Rory and Nathaniel were the result of a confluence of events and circumstances. There was no one defining act which contributed to their death. Their deaths were the result of a number of omissions and accidents.

123. A very junior member of Hastings Deering staff with no experience and insufficient supervision was tasked to tidy up and band pallets. A number of people in addition to the apprentice approved the load for transport to Shaw's. The method of restacking and banding was not sufficient to stop movement during travel.

124. Other options for transporting the grouser plates were not considered, however it is clear that this was because neither the repacker, the supervisors, the transfer driver, the loader nor the truck driver, considered that the pallets formed a hazard. Their consideration was based on cursory inspections and presumptions, rather than careful examination, as well as lack of knowledge about the most stable way to stack the plates.

125. Raymond John Knott omitted to check his load between Darwin and when he stopped that evening. Such a check should have occurred and should have been more than cursory, and thorough enough to identify any settling and shifting of the load. However I cannot find that such an inspection would have prevented the grousers from falling from the trailer.

126. The awareness, familiarity and structured quality training on the load restraint guide for those associated with the pallets was limited at the time of the accident. Mr Knott was aware of the guide but had never read it, Shaw's had copies in their depot but there was no formal training on its contents, Hastings Deering had no copies at their premises at all. The repeated evidence of other witnesses was that there is no formal training available to them on the requirements of the load restraint guide. "Formal training" does not necessarily mean classroom or lecture style training. Any system of learning and transfer of information, which can be quality controlled and competency based, including one on one direct supervision on the job, can be appropriate.

127. The difficulty of course arises in the imparting of information to owner operators such as Mr Knott, not connected with any of the formal bodies associated with the trucking industry.

128. From the evidence in this investigation, I make the following recommendations:

129. I recommend that Hastings Deering continue to develop and offer training on loading particular materials on pallets.

130. I recommend that Shaw's provide to staff formal training on load restraint methods and develop and document procedures for loading trucks in accordance with the load restraint guide.

131. I recommend that the NT Police continue to provide the Accident Investigation Unit staff with investigation and interview training as well as the other matters raised in the letter of Assistant Commissioner Kelly to the Territory Coroner on 17 August 2004, in an endeavour to improve the quality and timeliness of coronial investigations.

132. I recommend that a protocol be developed between the NT Police and NT WorkSafe in relation to the reporting and investigation of work related motor vehicle accidents.

133. I recommend that NT WorkSafe work with the trucking industry and related industries to provide information on standards and procedures in the industry in regard to use of pallets, banding of pallets and the development of formal training materials on the requirements of the load restraint guide.

Dated
1 October 2004

Elizabeth Morris

Deputy Coroner