



# Bus Safety Investigation Report

## Gosford

8 June 2004

**Sudden Brake Application Resulted In Multiple Injuries.**



**Road Safety Investigation**

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## **PART 1 EXECUTIVE SUMMARY**

- 1.1 At approximately 08:50hr on 8 June 2004 a bus, operated by the Red Bus Services Pty. Ltd, was involved in an incident on approach to the Gosford Public Primary School after making a right turn from Baker Street into Georgiana Terrace. The bus was on a 'school run' with approximately 25 primary school children onboard.
- 1.2 Whilst making the turn and looking in each direction for oncoming traffic, the driver braked suddenly when he believed he was in danger of colliding with a light pole located in the footpath adjacent to the school bus zone. As a result a number of children, who were already standing in anticipation of disembarking, were thrown forward.
- 1.3 The driver avoided colliding with the pole and the children disembarked and went into school. Later that morning, one of the children spoke to the headmaster of the school and complained that she was hurt. The headmaster then called for all students involved in the incident to attend his office. He subsequently called the Police, Ambulance Service, Red Bus Services Pty. Ltd and the parents of the injured students.
- 1.4 11 children were subsequently taken to hospital by ambulance. All but one of the children were released that afternoon. The one child kept overnight was discharged the next morning when additional tests that had been planned were deemed unnecessary.
- 1.5 The bus driver did not notify the company of the incident. Red Bus Services Pty. Ltd only became aware of the incident after being contacted by the headmaster.
- 1.6 The investigation established that the primary cause of the incident was the driver's pre-occupation whilst turning right, in the absence of traffic lights and stop/give way signs, with the possibility of traffic approaching from his left.
- 1.7 As a result of this investigation, OTSI recommends that:
  - a. The Ministry of Transport require Red Bus Services Pty. Ltd to:
    - (1) amend their Driver Instruction Manual to reflect the requirement for drivers to immediately notify the Company in the event of an accident or an incident; and
    - (2) develop, document, distribute and implement an Emergency Management Plan.
  - b. Gosford Council, in conjunction with the RTA, review traffic control measures at the intersection of Baker Street and Georgina Terrace.

## **PART 2 FACTUAL INFORMATION**

### **Overview**

- 2.1 At approximately 08:50hr on 8 June 2004 a bus, operated by the Red Bus Services Pty. Ltd, was involved in an incident on approach to the Gosford Public Primary School after making a right turn from Baker Street into Georgiana Terrace. The bus was on a school run with approximately 25 primary school children onboard.
- 2.2 In response to the incident, the Chief Investigator, Office of Transport Safety Investigation, directed that, pursuant to Section 46B of the Passenger Transport Act (1990), the matter be investigated to:
- a. Identify the contributory factors which led to the accident.
  - b. Identify whether the incident type might have been anticipated and assess the effectiveness of Red Bus Services Pty. Ltd's risk management strategies
  - c. Assess the adequacy of the emergency response to the incident as it affected the safety of all persons involved.
  - d. Advise on any matters arising from the investigation that would enhance the safety of bus operations.

### **The Occurrence**

- 2.3 Having stopped at the "T junction" at the end of Baker Street, the bus driver prepared for a right turn into Georgiana Terrace where the school bus drop-off zone was located. He looked left, but had a limited view of traffic that might approach from that direction because of the presence of a 4WD vehicle stopped at a pedestrian crossing to his immediate left. Traffic flow at the intersection was not regulated by either traffic lights, or 'stop' or 'give-way' signs. The bus driver edged his way forward and was subsequently waved-on by the driver of the 4WD.
- 2.4 Having been waved-on, the bus driver proceeded with caution, conscious of the fact that other drivers might attempt to pass the 4WD on his left. At a point quite late in the turn however, the driver suddenly realised that there was an imminent prospect of a collision with the light pole adjacent to the drop-off zone and braked suddenly – see Figure 1.



*Figure 1.* "T junction" as viewed from the end of Baker Street. Gosford Public School can be seen across the road on the left-hand side. The school bus drop-off zone is located across the road in the vicinity and to the right of the white car. Nb that the white car was not in the vicinity at the time of incident, but that a 4WD, not shown, was in the vicinity of the pedestrian crossing.

- 2.5 As a consequence of the sudden braking, a number of children in the bus, who had already risen from their seats in anticipation of alighting, were thrown forward.

### **Injuries & Post Incident Management**

- 2.6 After the bus stopped, the children were disembarked. In his statement, the driver indicated that none of the children appeared distressed. However in response to questioning by the driver, 19 indicated that they were either sore or hurt and he therefore recorded their names.
- 2.7 At approximately 10:00hr, one of the children spoke to the headmaster of the school and said that she had been hurt on the bus that morning. The headmaster then called for all students involved in the incident to attend his office. In response to the number of children that presented, the headmaster called the Police and the Ambulance Service, and later the parents of the injured students and Red Bus Services Pty. Ltd. 11 children were subsequently taken to hospital by ambulance. With the exception of one child, all injuries were assessed as being minor and the children were released the same day. The child that was not released remained in hospital overnight as the attending doctor was considering carrying out an MRI scan the next day. However the next morning this was considered unnecessary and the child was discharged.

- 2.8 The bus driver did not notify the school or Red Bus Services Pty. Ltd of the incident. He indicated that he intended to advise his employer upon his return to the depot, but subsequently forgot to do so. He saw no urgency to report the incident because he felt the children were uninjured and there was no damage to the bus. The police subsequently interviewed the driver two hours later but because of the elapsed time did not breathalyse him.

### **Loss or damage**

- 2.9 There was no damage to the bus, any other vehicle, or public infrastructure.

## **PART 3 ANALYSIS**

### **Bus Operator**

- 3.1 Red Bus Services Pty. Ltd is based at Coleridge Road in Bateau Bay, with a second depot located in Gosford. The company has been in business in the Gosford area for approximately 65 years and it currently operates 78 buses and employs approximately 100 drivers.
- 3.2 The company was last audited by the Ministry of Transport (MOT) on 3 December 2002 when it was determined to be operating satisfactorily. The company's contract with the MOT was renewed on 28 June 2003 for a period of five years. At the time of the incident, the Red Bus Services Pty. Ltd was servicing a school run that it has operated for many years and was conveying approximately 25 children to the Gosford Public Primary School.

### **Driver Qualifications, Competencies and Record**

- 3.3 The driver was a permanent relief driver and has been employed by Red Bus Services Pty. Ltd since May 1998. Red Bus Services Pty. Ltd indicated that they held the driver in high regard and an examination of their database, dating back to January 2001, did not indicate that the driver had been involved in previous mishaps.
- 3.4 Police records indicated that the driver obtained his bus licence in 1998 and that he subsequently obtained another licence to operate heavier vehicles. The Police advised that the driver has not incurred any infringements since the issue of his bus licence.<sup>1</sup> They further advised that, after viewing CCTV footage, the occurrence had been classified an 'incident' rather than an 'accident' and that they did not intend to lay any charges.

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<sup>1</sup> The bus licence is MR2 and authorises the holder to operate a rigid vehicle with two axles of more than 8 tonnes – it also includes vehicles in class LR. The heavy licence, Class HR, allows a holder to operate a rigid vehicle with 3 or more axles and of more than 8 tonnes – it also includes articulated buses and vehicles in the class MR.

### **Driver Roster**

- 3.5 The driver was usually rostered to work Monday to Friday during school days. On the day of the incident, and the day before, he commenced work at 04:10 hr and was due to finish at 13:30 hr. He was rostered to work the same shift all week. Red Bus Services Pty. Ltd requires their drivers to indicate whether they have other jobs and the driver had indicated he did not. On the day in question, the driver was operating the particular service in lieu of the regular driver who was on holidays.

### **Bus – Licensing and Mechanical Condition**

- 3.6 The bus, an Isuzu (LT1) was manufactured in 1994 and was licensed to carry 55 seated and 17 standing adult passengers. It was also licensed to carry three primary school children for every two adults i.e. a maximum of 102 primary school children.
- 3.7 Maintenance records for the bus, dating back to 1994, were made available to OTSI and indicated regular servicing. The last scheduled service was conducted on 22 April 2004.

### **Traffic Conditions**

- 3.8 The incident occurred in daylight, on a fine day and on a dry but busy road. The right turn being attempted by the driver was complicated by the presence of a vehicle to his left, which limited visibility of traffic that might be approaching from the left, and a light pole across the street in the direction of travel. The positioning of the pole provided a barrier protecting pedestrians using the footpath in that it prevented large vehicles from encroaching onto the footpath during such turns. However it also meant that drivers of large vehicles had a restricted turning arc and this required that any right turn from Baker Street into Georgina Terrace be commenced early. In this instance, the bus driver, who did not have the benefit of traffic lights or stop/give-way signs to assure him of his right-of-way, was most concerned about the prospect of the possibility of traffic approaching from his left. As a consequence, he momentarily lost awareness of the light pole. Upon shifting his focus to the right, he was required to brake suddenly to avoid colliding with the pole.

### **Risk Management and Emergency Response**

- 3.9 The scenario that confronted the driver immediately prior to the incident was quite routine and all bus operators appreciate the risks associated with sudden braking. OTSI's review of Red Bus Services Pty. Ltd's related documentation indicated that it is less than will be required in 2005 when the Ministry of Transport will require operators to have a formally documented safety management system.

- 3.10 Red Bus Services Pty. Ltd did not respond to the incident because their driver failed to notify them of the incident. When questioned about this matter, the driver indicated that because he had not been involved in an accident he did not believe there was any urgent requirement to contact Red Bus Services Pty. Ltd. He intended to advise his employer as soon as he arrived at the Gosford depot, but subsequently “forgot”. The Company’s expectations of drivers in relation to emergencies and accidents were reflected in a Driver Instruction Manual. The driver was in possession of the manual, and the relevant parts of this procedure and they required him to:

*“Notify the depot immediately. If necessary, ask for ambulance or police...Follow the instructions the depot relay to you, they may need to sent (sic) a management representative to the scene...Obtain the name and address of any person injured...”*

These instructions make no mention of an event that falls short of an accident or an emergency, such as this incident. Nor did the Company have a documented plan which indicated the actions to be taken in the event it was notified of an incident, accident, or emergency and assigned responsibilities for its management. OTSI notes however that the Company was not required to have such a documented plan, but that bus operators will be required to do so with effect January 2005.

- 3.11 In response to the incident, Red Bus Services Pty. Ltd re-emphasised the requirement to report accidents on its notice board and raised this at a following meeting with drivers. The Company also indicated that it intended to approach the local Council to increase the turning circle into Georgina Terrace by having the bus drop-off zone positioned further down the street.

## **PART 4 FINDINGS**

- 4.1 OTSI finds that:

- a. Red Bus Services Pty. Ltd was operating in accordance with the conditions of its accreditation; including the conditions pertaining to taskworthiness of vehicles and passenger limits.
- b. The bus driver was appropriately qualified and licensed to operate the bus and there was nothing to suggest that he was in any way impaired at the time of the incident.
- c. In relation to contributing factors, that:
  - (1) The primary cause of the incident was the driver’s pre-occupation whilst turning right, in the absence of traffic lights and stop/give way signs, with the possibility of traffic approaching from his left.

- (2) The turning manoeuvre being attempted by the driver was complicated by the limited visibility of traffic approaching from his left and the positioning of a light pole in the direction of travel.
- d. In relation to the matter of effectiveness of risk management, that whilst Red Bus Pty. Ltd understood the risks associated with its operation, its documentation of procedures to manage such risk was inadequate
  - e. In relation to the matter of effectiveness of the emergency response, that:
    - (1) Red Bus Services Pty. Ltd was not well-positioned to handle adverse events, when reported, because it did not have a formally documented Emergency Management Plan.
    - (2) Red Bus Services Pty. Ltd was denied the opportunity to respond to the incident because its driver failed to notify it of the incident.
    - (3) The actions of the Principal of Gosford Public School, in contacting both the Police and Ambulance Service, were commendable.
  - f. In relation to matters that might enhance the safety of bus operations, that there is scope for improved traffic flow and safety at the intersection of Baker Street and Georgina Terrace.

## **PART 5 RECOMMENDATIONS**

5.1 It is recommended that:

- a. The Ministry of Transport require Red Bus Services Pty. Ltd to:
  - (1) amend their Driver Instruction Manual to reflect the requirement for drivers to immediately notify the Company in the event of an accident or an incident; and
  - (2) develop, document, distribute and implement an Emergency Management Plan.
- b. Gosford Council, in conjunction with the RTA, review traffic control measures at the intersection of Baker Street and Georgina Terrace.