



**Office of Transport Safety Investigations**

# **BUS SAFETY INVESTIGATION INTERIM FACTUAL STATEMENT**

**BUS FIRE**

**SYDNEY HARBOUR BRIDGE**

**15 SEPTEMBER 2016**



# THE OFFICE OF TRANSPORT SAFETY INVESTIGATIONS

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The Office of Transport Safety Investigations (OTSI) is an independent NSW agency whose purpose is to improve transport safety through the investigation of accidents and incidents in the rail, bus and ferry industries. OTSI investigations are independent of regulatory, operator or other external entities.

Established on 1 January 2004 by the Transport Administration Act 1988, and confirmed by amending legislation as an independent statutory office on 1 July 2005, OTSI is responsible for determining the causes and contributing factors of accidents and to make recommendations for the implementation of remedial safety action to prevent recurrence. Importantly, however, OTSI does not confine itself to the consideration of just those matters that caused or contributed to a particular accident; it also seeks to identify any transport safety matters, which, if left unaddressed, might contribute to other accidents.

OTSI's investigations are conducted under powers conferred by the Transport Administration Act 1988 and the Passenger Transport Act 1990. OTSI investigators normally seek to obtain information cooperatively when conducting an accident investigation. However, where it is necessary to do so, OTSI investigators may exercise statutory powers to interview persons, enter premises, examine, and retain physical and documentary evidence.

It is not within OTSI's jurisdiction, nor an object of its investigations, to apportion blame or determine liability. At all times, OTSI's investigation reports strive to reflect a "Just Culture" approach to the investigative process by balancing the presentation of potentially judgemental material in a manner that properly explains what happened, and why, in a fair and unbiased manner.

Once OTSI has completed an investigation, its report is provided to the NSW Minister for Transport and Infrastructure for tabling in Parliament. The Minister is required to table the report in both Houses of the NSW Parliament within seven days of receiving it. Following tabling, the report is published on OTSI's website at [www.otsi.nsw.gov.au](http://www.otsi.nsw.gov.au).

## Incident Overview

At 1722 on Thursday 15 September 2016, a State Transit Authority (STA) bus MO 3726, a 1996 Scania, model L113CRL, caught fire on the Sydney Harbour Bridge at Milsons Point. At the time, the bus was travelling northbound on the Sydney Harbour Bridge with 22 passengers and a driver on board. It was the 204 route service, travelling from the CBD to Northbridge.

## Bus Information

The bus was a 1996 built Scania chassis, the body was fabricated in Tamworth by Ansair. The bus was powered by a six cylinder diesel engine and had accumulated approximately 897 204 service kilometres at the time of the incident. The bus was last inspected by Roads and Maritime Services on the 9 August 2016. It was deemed fit for service. There are approximately 150 of this model bus still in service with STA.

The vehicle was not fitted with a fire suppression system, however, it did contain a fire sensor located in the engine bay to warn the driver of possible fire and or elevated temperature in the engine bay. The sensor activates a warning light on the driver's dash.



Figure 1: Similar model Scania bus

## Before the Incident

The bus at the time was on bus route 204, a CBD to Northbridge service. The bus departed Loftus Street in the CBD at approximately 1714 and was scheduled to arrive at Northbridge at 1734. This route required the driver to drive the vehicle over the Harbour Bridge. He was travelling northbound in lane 2 just before the incident.

## The Incident

At approximately 1722 the driver noticed smoke coming from the outside rear of the bus. He then checked his inside rear-view mirror and noted smoke emitting from the inside rear near-side of the bus. About the same time the passengers noticed the smoke and moved to their nearest exit and waited for the driver to stop the bus. The driver stopped the bus just past the north-western pylon on the bridge. The driver opened both the rear and front doors of the bus and told the passengers to disembark. The bus was evacuated in less than 15 seconds. The driver tried to warn traffic of the impending fire and tried to stop another STA bus. The other STA bus did not stop.

The fire intensified and progressed from the engine bay to the interior of the bus. Fire and Rescue NSW attended and extinguished the fire.



Figure 2: Interior of the bus

## Post Incident

Two passengers and the driver were transported to hospital and were treated for smoke inhalation. They were released later the same evening.

At 2020 the bus was towed back to the STA Leichhardt bus depot. As a result of the high intensity of the heat from the bus, the roadway at the incident location had to be cleaned and repaired. OTSI advised STA to quarantine the bus pending an OTSI examination. The bus was examined by an OTSI investigator the following morning.

## Preliminary Investigation

On the morning 16 September 2016, OTSI conducted a preliminary investigation to determine what caused the fire, were there systemic issues in regards to the fire and to determine if a formal investigation was warranted. Early indications were that the fire started within the engine bay and the initiation may have been electrical in nature. Once the fire began in the engine bay the fire was fueled by hydraulic oil reservoirs and diesel fuel lines.

Currently STA are fitting fire suppression systems to all buses. The program started in December 2015 and is due for completion in December 2016. The program is on schedule, however the bus involved in this incident was not yet fitted with a fire suppression system. According to the STA it was scheduled to be fitted in the coming weeks.

## Other Safety Matters

The preliminary investigation has noted other safety matters that may impact on the safety of buses. These include but are not limited to: the shutdown procedure of buses, passenger evacuation in high risk road environments, driver training, maintenance procedures and fire suppression systems on buses.

As a result of information obtained by OTSI, the Chief Investigator determined that the incident warranted formal investigation in accordance with Section 46BA of the *Passenger Transport Act 1990*.

## Terms of Reference

The terms of reference established by the Chief Investigator require OTSI's Investigating Officer to:

- a. identify the factors, both primary and contributory, which led to the incident;
- b. advise whether the incident might have been anticipated and the effectiveness of any strategies that were in place to manage the related risks; and
- c. advise on any matters arising from the investigation that would enhance the safety of bus operations.

## Status of the Investigation

OTSI's investigation has commenced. During the course of the investigation, all Directly Involved Parties (DIPs) will be consulted and will be afforded the opportunity to provide information and commentary, which will contribute to ensuring that the investigation and its report are inclusive and comprehensive.

Once completed, OTSI's investigation report will be tabled in both Houses of the NSW Parliament by the Minister for Transport and Infrastructure in accordance with Section 46D of the *Passenger Transport Act 1990*. When the report has been tabled, it will be published on OTSI's website and will replace this Interim Factual Statement.