RAIL SAFETY INVESTIGATION

INTERIM FACTUAL STATEMENT

EXPLOSION IN ELECTRICAL EQUIPMENT SPACE ON SYDNEY TRAINS WARATAH SET A08 SERVICE 177J

BURWOOD

20 March 2017
The Office of Transport Safety Investigations (OTSI) is an independent NSW agency whose purpose is to improve transport safety through the investigation of incidents and accidents 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 (NSW)*, and confirmed by amending legislation as an independent statutory office on 1 July 2005, OTSI is responsible for determining the 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 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 (NSW)* and *Passenger Transport Act 1990 (NSW)*. Additionally, all OTSI publications that are considered investigation reports are also conferred by these Acts. OTSI also conducts rail investigations on behalf of the Australian Transport Safety Bureau under the *Transport Safety Investigation Act 2003 (Cwlth)*. 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 and 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 our balanced approach to the investigation, 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).
Overview

At 1326 on 20 March 2017, Sydney Trains passenger service 177J, Waratah set A08, experienced an explosion and small fire in the electrical equipment space of the roof mounted train inverter module (TIM) as it arrived alongside Platform 3 at Burwood. As a result, the external hatches of the TIM were ejected from the train with two hatches landing on Platform 3 and two on Platform 5. A passenger inside A08 was slightly injured when the explosive force deformed the hand rail they were leaning against.

Sydney Trains and the train’s maintainer have taken actions to prevent a recurrence of this incident. Actions include closer monitoring of data from trains to identify emerging problems and instructions to train crew in regard to the management of particular fault indications.

Terms of Reference

The terms of reference require OTSI’s Investigating Officer to:

- Identify the contributing factors for the explosion and fire aboard A08 on 20 March 2017.
- Review the adequacy and timeliness of the incident notification, communication and response arrangements for the incident.
- Review the safety actions taken by Sydney Trains and their maintainer in response to the incident.
- Recommend opportunities for improvement based on the findings of the scope above.

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 comment on the Draft report before it is finalised.

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 NSW 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.