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OFFICE OF  
TRANSPORT  
SAFETY  
INVESTIGATIONS

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# Rail Safety Investigation

## Interim Factual Statement

**Track Working Fatality**  
**Ballast Train 5M23**  
**Vicinity of Baan Baa**

**22 May 2006**



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.

Established on 1 January 2004 by the *Transport Administration Act 1988*, the Office 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.

OTSI investigations are conducted under powers conferred by the *Rail Safety Act 2002* 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 and examine and retain physical and documentary evidence. Where OTSI investigators exercise their powers of compulsion, information so obtained cannot be used by other agencies in any subsequent civil or criminal action against those persons providing information.

OTSI investigation reports are submitted to the Minister for Transport for tabling in both Houses of Parliament. Following tabling, OTSI reports are published on its website [www.otsi.nsw.gov.au](http://www.otsi.nsw.gov.au).

OTSI's investigative responsibilities do not extend to overseeing the implementation of recommendations it makes in its investigation reports. OTSI monitors the extent to which its recommendations have been accepted and acted upon through consultation with the relevant Transport Safety Regulator.

Information about OTSI is available on its website or from its offices at:

Level 21, 201 Elizabeth Street  
Sydney NSW 2000  
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Sydney South NSW 1235

The Office of Transport Safety Investigations also provides a Confidential Safety Information Reporting facility for rail, bus and ferry industry employees. The CSIRS reporting telephone number is 1800 180 828.

## Overview

At approximately 9.15am on 22 May 2006, a track worker employed by the Rail Infrastructure Corporation and seconded to the Australian Rail Track Corporation was fatally injured when struck by a side ballast chute on a ballast wagon while participating in ballasting operations approximately 3 Km South of Baan Baa in the section of track between Gunnedah and Narrabri. The ballast train 5M23, crewed by two Southern Silverton drivers, consisted of three locomotives and 22 ballast wagons, with a plough van at the rear (see *Figure 1*).



**Figure 1: Ballast Train near Baan Baa**

The fatally injured worker had been one of a team of three track workers who were controlling the distribution of ballast. A fourth worker operated a plough at the rear of the train, reducing the height of the ballast so that it was no higher than the rails. A fifth worker supervised the operation from the leading locomotive, while a sixth drove a support vehicle along the fire trail beside the track.

In order to maintain continuity of ballast distribution, the three track workers each rode on a loaded wagon, alighting when that wagon was empty, and re-joining the train on the next unoccupied, loaded wagon. In this manner, the three workers unloaded from the front of the train, working rearwards, utilising hydraulic controls to actuate the ballast chutes.

The ballasting operation was continuous, i.e., the three track workers were required to step off the empty wagons and step onto the next loaded wagon while the ballast train was in motion. The ballast wagon walkway and steps are shown in *Figure 2*.



**Figure 2: Ballast Wagon Walkway and Steps**

An OTSI investigator deployed to the site of the accident near Baan Baa and commenced a preliminary investigation on the day of the accident, 22 May. As a result of the preliminary investigation, the Chief Investigator determined that the accident warranted formal investigation in accordance with Section 67 of the *Rail Safety Act 2002 (NSW)*.

## Terms of Reference

The terms of reference established by the Chief Investigator require OTSI's Investigator in Charge to:

- identify the factors, both primary and contributory, which caused the accident;
- identify whether the ballasting operation was being conducted according to procedures established by the Australian Rail Track Corporation for such work;
- identify whether the workers conducting the ballasting operation had been adequately trained in the use of the established procedures;
- identify whether the established procedures were appropriate for the safe conduct of ballasting operations;
- identify whether the incident might have been anticipated and assess the effectiveness of any strategies that were in place to manage the related risk/s;
- assess the effectiveness of emergency actions in response to the incident, and
- advise on any matters arising from the investigation that would enhance the safety of rail operations.

## **Status of the Investigation**

OTSI's investigation has commenced. Once completed, OTSI's investigation report will be tabled in Parliament by the Minister for Transport in accordance with Section 68 of the *Rail Safety Act 2002 (NSW)*. When the Report has been tabled, copies will be made available to all directly involved parties and the report will be published on OTSI's website.