

MANAGING A SERIOUS INCIDENT AT A MUSEUM

My presentation today is about managing a serious incident or occurrence at a museum in NSW and reporting it to the relevant authorities.

As you know we had a serious incident at STM in May this year and I thought I would pass on the process we followed in reporting and managing the incident with comments on what we could have done better. I cannot stress enough that each Museum should do an emergency exercise to test their systems.

Because the investigation into the accident is in progress I cannot make any comments about this accident as those persons, like myself, who were interviewed had to sign a document agreeing not to discuss the accident or the investigation so this presentation is about the process of reporting an accident and the actions that followed.

But before I do this I would like to give you some background on the formation of the two organisations involved in our accident investigation, namely the rail safety regulators and the safety investigators, as they are two separate organisations.

a) The Rail Regulators

In 2002, after 2 serious railway accidents in NSW, which occurred in the 1990's, the NSW Rail Safety Act was setup and initially administrated by the *NSW Department of Transport* (DoT).

During this period the *DoT* authorities insisted that the Tourists and Heritage (T&H) groups put in place, written operating procedures. STM had already done this back in 1980 when we produced our *Tramway Operations Handbook* that was based on the *NSW Tramways* operating procedures.

In 2004, after the Waterfall accident, the *Independent Transport Safety and Reliability Regulator* (ITSRR) was established and reported directly to the Minister for Transport.

In 2007 *ITSRR* issued a set of sample SMS documents for the Tourist and Heritage groups to use when preparing their SMS. These documents were very useful in developing our first SMS.

In 2010, *ITSRR* was renamed *The Independent Transport Safety Regulator* (ITSR) following the transfer of the *transport reliability advice and reporting* staff, to the *Department of Transport*. Thus the principal objective of *ITSR* was to facilitate the safe operation of the railways in NSW.

In 2011-12 the Council of Australian Governments (COAG) committed to a national reform of rail safety regulations because a number of private operators were operating in many states and were required to have a separate SMS for each state in which they operated. So the *Office of the National Rail Safety Regulator* (ONRSR) was established to provide a single national rail safety regulator, and to administer a nationally consistent rail safety law, called the *Rail Safety National Law 2012*.

The primary objectives of the ONRSR are to encourage and enforce safe railway operations and to promote and improve national rail safety in Australia.

When setup in January 2013 the new *Rail Safety National Law* included South Australia, Tasmania, Northern Territory and New South Wales. However in NSW, *ITSR* began delivering rail safety regulatory services for *Office of the National Rail Safety Regulator* (ONRSR), under a service level agreement rather than transferring the staff to *ONRSR*.

Progressively the various Australian states have either enacted or are about to enact similar legislation as the *Rail Safety National Law* to ensure that there is only one rail safety regulator (ONRSR) for Australia. The timetable was:

- May 2014, Victoria enacted the *Rail Safety National Law Application Act 2013 (Victoria)* and

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staff of Transport Safety, Victoria (TSV) joined as the Victorian Branch of the *ONRSR* under a service level agreement. However, at this stage, Victoria has exempted the tourist and heritage operations and the tramways from its National Rail Safety act.

- November 2014, the Australian Capital Territory enacted their *National Rail Safety Law (ACT) Act 2014* and joined ONRSR.
- On 2 November 2015, Western Australia enacted their *Rail Safety National Law (WA) Act 2015* and joined ONRSR.
- In 2016 Queensland will be enacting the *Rail Safety National Law*.

That means that ALL states will then be under one national regulator and operate under one national rail safety law.

b) The Rail Investigators

In 1988 the *Office of Transport Safety Investigations* (OTSI) was setup and reports directly to the Minister for Transport in the NSW Government.

Again OTSI was established as an **independent** body to investigate safety occurrences involving bus, ferry and rail transportation in NSW. The purpose of these investigations is to identify why an occurrence took place and make recommendations to prevent a recurrence.

Then there is the *Australian Transport Safety Bureau* (ATSB), an independent Commonwealth Government statutory Agency that was setup in 2000. The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. It covers aviation, marine and rail.

The *ATSB* is Australia's national transport safety investigator. It operates under the Transport Safety Investigation Act 2003 and contributes to transport safety by independently investigating, analysing and openly reporting on transport safety matters.

When *ONRSR* was setup the *ATSB*'s role was enhanced to become the National Rail Safety Investigator and acts independently of the *ONRSR* to conduct 'no-blame' investigations. That is it does NOT prosecute but will produce recommendations from an investigation into accidents. This means that you can be more open with your answers as the *ATSB* evidence CANNOT be used in a court of law, thus why we had to sign a paper stating that would not to talk about our evidence.

ONRSR on the other hand, after their investigations, can jail people, issue fines or improvement notices from their investigations. This means that you have to be careful with your answers and can decline to answer if it is incriminating as the *ONRSR* evidence CAN be used in a court of law.

It should be noted that *ATSB* could also investigate *ONRSR* if they believe that *regulator* was not sufficiently regulating the transport operator.

Notifiable occurrences

<http://www.onrsr.com.au/operations/reporting/notifiable-occurrences>

The *Rail Safety National Law* requires notifiable occurrences to be reported to authorities. A notifiable occurrence means an accident or incident associated with railway operation that has, or could have, caused significant property damage, serious injury or death.

There are two categories of a notifiable occurrence:

- **Category A** - the most serious, which must be immediately orally reported by phoning the Australian Transport Safety Bureau (ATSB) on 1800 011 034 and follow up with a written report, which is to be completed online (about 10 pages), and sent to the *ONRSR* within 72 hours after the accident.

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- **Category B** - which must only be reported to the Office of the National Rail Safety Regulator (ONRSR) within 72 hours by completing the notification report online only.

For rail accidents, the ATSB receives Category A and B verbal reports via the telephone from rail transport operators. It passed on the details to OTSI and ONRSR for Category A and for Category B passed details onto ONRSR only.

And now the process that STM followed when our major reportable occurrence occurred.

Brief outline of the accident at STM in 15/5/2016

Briefly an unmanned tram that was incorrectly stabled on a hill in Tramway Avenue, ran away and collided with a tram returning from Sutherland. This tram had 15 passengers and a crew of 2. The driver of this tram noticed the other tram was unmanned and immediately stopped his tram and ordered everyone off the tram just before the collision. Thus no injuries.

This photo and information was published in the local newspaper so I have not contravened any other documents that I had signed, by giving you these details.

Actions Following the Accident

1. On The Day of the occurrence:

- a. As I have said STM reported the accident, by phone, to the ATSB ASAP as it was considered a Category A accident:
 - i. The ATSB then asked a series of questions, to determine its next course of action, which includes:
 - The name of the organisation reporting the accident?
 - Where did the accident occur? Make sure that you are specific when reporting the location.
 - Anyone injured or killed?
 - What was the estimated amount of damage to the vehicles, etc.?
 - A contact name and phone number.
 - ii. The ATSB then contacts ONRSR and depending on the severity, also OTSI.
 - iii. OTSI and ONRSR then made contact, by phone and after some more questions, decide if they will investigate immediately or at a later time.
- b. In our accident both OTSI and ONRSR decided to investigation the accident immediately. It should be noted that whilst the 2 organisations attended and were both looking at the accident, they did not work together. They did their own investigations on the day
- c. In the meantime we could not do anything except “guard” the accident site to stop people interfering with the trams.
- d. Whilst waiting for OTSI and ONSR to attend (about 1.5 hours to wait), I organised for the crews to be D&A tested as per the national law. All crews tested negative.

Just a comment about organising D&A testing. When D&A testing was first mentioned in the Rail Safety Acts, it was stated that we could rely on other organisations to perform the tests when an accident occurred. However this proved to be wrong as below:

- Initially STM decided to use the police but they would NOT do any testing unless the accident involved road vehicles at level crossings.
- So the next option was to take the tram crews to the local hospital for testing. Again they also refused to do the testing.
- The next option was to use a local pathology service. They would do the testing if we brought the crews to their office. However they closed at 3pm on Sundays and would charge for having staff at the office after 3pm.

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- Finally after explaining the issues to our *ONRSR* auditors during one of our recent audits they assisted by giving us a name of an organisation that was used by other railway organisations. We setup an agreement whereby we could callout a D&A testing officer to have D&A testing done.
 - e. OTSI and ONRSR arrived about 1.5 hours after reporting the accident and commenced their investigations.
 - f. The two organisations, individually:
 - i. Looked at the accident site and the damaged vehicles;
 - ii. Took measurements and photos;
 - iii. Interviewed the crews at the Museum;
 - iv. Interviewed others on site which turned out to be 1 person; and
 - v. After about 2.5 hours they approved the moving of vehicles but wanted the damaged trams quarantined until further investigations were completed.
 - g. However before OTSI left the site they told us that they were not sure if OTSI (NSW law) or ATSB (Commonwealth law and more stringent) would continue with the investigation. Their superiors would decide that in a few days time. This was how serious they considered the accident to be.
2. In the days following the accident:
- a. It was decided that the accident was serious enough for it to be escalated to an *ATSB* investigation.
 - b. Both the *ATSB* and *ONRSR* request the following paperwork:
 - i. for the trams involved – original authorisations to operate the trams, maintenance history and the last annual inspection report;
 - ii. the hours that the crews were on site (possible fatigue issue) and the previous hours that the crews worked either at the Museum or elsewhere; and
 - iii. the training and competencies records of the tram crews involved;
 - c. The *ATSB* and *ONRSR* then conducted further formal interviews at their offices in Sydney during the following weeks. Those interviewed, which were recorded, were not only the tram crews but also the Workshop Manager, Chief Engineer and Rail Safety Manager.
 - d. Later the *ATSB* and *ONRSR* investigators came out to the Museum to look at trams involved, the location of the accident to better understand situation and at our operations.
 - e. The *ATSB* investigators performed further tests to determine speed that the runaway tram was travelling before the impact and thoroughly inspected damaged trams including under the tram (via the pit).
 - f. *ONRSR* used their own railway engineer.
 - g. Both thoroughly checked the chocking and hand brake operations of our trams.
 - h. *ATSB* will prepare a report in about 9 months after the accident.
 - i. *ONRSR* not issue a report but will send a letter setting out penalties or an improvement notice based on their findings. The notices set out the actions to be completed.
3. From their investigation so far, *ONRSR* has made the following verbal suggestions:
- i. STM should have closed the Museum completely (I decided to leave the Museum open after the accident as we had a group on site and we quarantined the site north of Cross Street allowing the trams to operate to the RNP);
 - ii. STM should have “rounded up” the passengers from the trams involved and:
 - Should have called an ambulance – just in case of injuries;
 - Should have checked for injuries of passengers – the crew checked for any injuries and all passengers just walked back to the Museum;
 - Got the names and addresses of all passengers/witnesses; and

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- Give them tea/coffee and offer free entry next time.

These lessons below were never realized during our emergency exercised but were recognized after our accident.

For staff involved in a serious incident may I suggest the following:

- Provide a “sick bay” area for persons to lie down after an incident, i.e. recover from shock, but a better solution, send them to hospital;
- Have other members who are on site but not involved with the accident, talk to those involved in an accident to allow them to express their concerns and talk through their issues;
- Don’t let those involved in the accident drive home, either send them in a taxi or let another member take them home and someone to follow to take their car home; and
- Setup an access to a counseling service to ensure any crew involved in such incidents are offered counseling.

Other Comments

I have produced a report of the accident but we will not issue it until the *ATSB* publish its report on their findings and *ONRSR* given us documentation of their actions or suggested improvements from the accident.

I suggest that you become proactive after an accident - I issued at least 10 Traffic/Safety Notices (copies sent to the regulator and investigator) about changes to our operation or re-enforcing our existing systems after the accident. I received good comment from *ONRSR* about this action. In the past I have found that being proactive rather than reactive proves beneficial.

Finally

Our emergency management procedures were initially developed in 2007 when the regulator gave us the sample SMS documents. When they were developed it was only the regulator, via the *ATSB*, that had to be notified of any accident. They would decide whether to investigate further and to release the tram. We had a number of reportable accidents over the past few years and each time the regulator contacted us and only wanted to see the 72-hour report.

So having *OTSI* investigators turning up at the accident was a shock for us as this accident was the first time that *OTSI* investigators were involved and thus we have had to change our emergency management procedures to now include *OTSI* investigators.

Training For An Emergency

May I suggest that you do an emergency exercise to let staff know and understand the procedures in your Museum. We did one desktop exercise for the *OIC*’s in February 2013. We also had a representative from the Police and the Emergency Co-ordinator from Sutherland Shire Council attended. A very worthwhile exercise but nothing can really prepare you unless something really happens.

Basically whilst we did a desktop emergency exercise to ensure the *OIC*’s were aware of our Emergency procedures we did not fully comprehend the following:

- Psychological issues of crews involved in the accident;
- Did not think about following up with passengers about psychological injuries and witnesses as we were more concerned with the crews and notifying the authorities of the accident; and
- The shock of seeing such a serious accident certainly affects you (we had many sleepless nights).

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Appendix A – Notifiable Occurrences.

Important notes

Reporting Notifiable Occurrences Guideline – The information requested in this form is based on the national guideline for occurrence notifications, Occurrence Notification – Standard One (ON–S1), March 2013. ON–S1 is available online at the ONRSR website at www.onrsr.com.au.

OC–G1 Classification – The national occurrence classification category (name or reference) as defined in the national guideline for classifying notifiable occurrences, Occurrence Classification – Guideline One (OG–G1) March 2013. OC–G1 is available online at the ONRSR website at www.onrsr.com.au.

Definitions of Category A and B notifiable occurrences – regulation 57 of the Rail Safety National Law National Regulations 2012 (SA) contains the following definitions of Category A and Category B notifiable occurrences.

Category A

- (a) an accident or incident that has caused death, serious injury or significant property damage;
- (b) a running line derailment;
- (c) a running line collision between rolling stock;
- (d) a collision at a road or pedestrian level crossing between rolling stock and either a road vehicle or a person;
- (e) a suspected terrorist attack;
- (f) any accident or incident involving a significant failure of a safety management system that could have caused death, serious injury or significant property damage;
- (g) any other accident or incident likely to generate immediate or intense public interest or concern.

Category B

- (a) a derailment, other than a running line derailment;
- (b) a collision involving rolling stock, other than a collision described as a Category A occurrence under paragraph (c) or (d) above;
- (c) an incident at a road or pedestrian level crossing, other than a collision described as a Category A occurrence under paragraph (d) above;
- (d) an incident in which a vehicle or vessel strikes an associated railway track structure ;
- (e) the passing of a stop signal, or a signal with no indication, by rolling stock without authority;
- (f) an accident or incident where rolling stock exceeds the limits of authorised movement given in a proceed authority;
- (g) a rolling stock run-away;
- (h) a failure of a signalling or communications system that endangers, or that has the potential to endanger, the safe operation of trains or the safety of people, or to cause damage to adjoining property;
- (i) any slip, trip or fall by a person on railway premises;
- (j) a person being caught in the door of any rolling stock;
- (k) a person suffering from an electric shock directly associated with railway operations;
- (l) any situation where a load affects, or could affect, the safe passage of trains or the safety of people, or cause damage to adjoining property;
- (m) an accident or incident involving dangerous goods that affects, or could affect, the safety of railway operations or the safety of people, or cause damage to property; trains or the safety of people, or cause damage to adjoining property;
- (n) any breach of a network rule;
- (o) any breach of the work scheduling practices and procedures set out in the rail transport operator's fatigue risk management program;
- (p) the detection of an irregularity in any rail infrastructure (including electrical infrastructure) that could affect the safety of railway operations or the safety of people;
- (q) the detection of an irregularity in any rolling stock that could affect the safety of railway operations;
- (r) a fire or explosion on, in or near, rail infrastructure or rolling stock that endangers the safety of railway operations or the safety of 1 or more people, or causes service terminations or track or station closures;
- (s) any incident on railway property where a person inflicts, or is alleged to have inflicted, an injury on another person;
- (t) a suspected attempt to suicide;
- (u) the notification that a rail safety worker , when required to do so under the drug and alcohol management program of a rail transport operator, has failed to submit to a test in accordance with the testing regime set out in the operator's drug and alcohol management program;
- (v) the notification that a rail safety worker has returned a result to a test undergone by the worker in accordance with the testing regime set out in the drug and alcohol management program of a rail transport operator that suggests that the worker was in breach of the operators drug and alcohol management program at a relevant time;
- (w) the infliction of wilful or unlawful damage to, or the defacement of, any rail infrastructure or rolling stock that could affect the safety of railway operations or the safety of people; or
- (x) a security incident associated with railway premises that affects the safety of railway operations, including an act of trespass, sabotage or theft that could affect the safety of railway operations.

For Category A notifiable occurrences, the Australian Transport Safety Bureau should be notified as soon as practicable after becoming aware of the occurrence on: 1800 011 034 (24 hour service)