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# **SYDNEY TRAMWAY MUSEUM**

## **DRIVER TRAINING AND ASSESSMENT PROCEDURE**

**OCTOBER 2018 MAY 2020**

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# SYDNEY TRAMWAY MUSEUM

## Document Control Record

### 1. Document Details:

**Name:** Driver Training and Assessment procedure and curriculum

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### 2. Version History:

Version Number	Date	Reason/Comments
1.0	10/03/2007	Initial issue
1.1	04/05/2008	Changed Driver Authorisation Record sheet and add other forms
1.2	02/10/2008	Correct minor errors in wording.
1.3	08/12/2008	Provisional driver, COC details
1.4	12/12/2008	Re-assessment process
1.5	05/03/2010	Clarification between Works drivers and Traffic drivers
1.6	18/07/2010	Changed ITSRR to ITSR
1.7	15/12/2011	Modify procedure to amend name of STM6045
1.8	31/01/2012	Modify procedure to correct anomalies in trips, etc.
1.9	10/06/2012	Change COC to Identification Card (IDC)
1.10	30/11/2012	Amended to specify how the Driver Examiners are to be assessed and to provide for additional substitute driver examiners.
1.11	7/03/2013	Corrected the age limit to bring into line with the PD for Driver (STM6058).
1.12	31/05/2013	Forms STM6137 and STM6138 were combined into one form
1.13	31/05/2014	Remove Form STM6139 – not needed
2.0	31/03/2016	Amended Distribution List format and document number
2.1	9/12/2016	Defined the form to be used for re-assessing tram crews
2.2	18/10/2018	Defining the process for drivers from other tram museums.
2.3	25/05/2020	Corrected the forms and removed the letters

**Approved by** ..... **Signature & Date** .....

### 3. Distribution List

Position	Date	Location of Documents
Rail Safety Manager		Original held on GOOGLE secure Website
STM WEB SITE		Updated regularly and put onto the STM Web site.
STM Office		STM Office Computer
STM Office		STM Office cupboard

# SYDNEY TRAMWAY MUSEUM

## 1. Purpose

To describe the processes for training a new driver and assessing or re-assessing an existing driver at the Sydney Tramway Museum.

## 2. Scope

This procedure sets out the process for:

- a) Training a driver from the time that a request to become a driver is received until the candidate is approved as a fully qualified driver;
- b) Assessing an existing driver who wants to gain accreditation of non-standard trams or who has to be re-assess because his Certificate of Competency qualifications are about to expire;
- c) Allowing tram drivers from other tram museums to drive at Loftus; and
- d) Assessing a Driver Examiners.

## 3. Responsibilities

The *STM Driver Examiners* shall be responsible for ensuring that the training of new drivers, the assessment of drivers who want additional accreditations or re-assessing existing drivers follows this procedure. The Workshop Manager, who knows the intimate details and workings of all tramcars, will be responsible for assessing the Driver Examiner and re-assessing the Driver Examiners every 5 years.

The procedure will be reviewed on a regular basis to ensure that it covers all new tram types received by the Museum.

The Rail Safety Management Team shall be responsible for ensuring that the training and assessment of drivers follows this procedure by auditing the process on a regular basis.

## 4. References

- STM5009 Crew Training Application Form
- [STM6017 General Safety Induction](#)
- [STM6019 Starter's Journal](#)
- STM6022 Safety in Tramcar Cabs Procedure
- [STM6031 Tramcar Pre-operation and Stabling Inspection Checklist](#)
- STM6037 Proceed Order form
- [STM6053 Tram Driver Assessment Report](#)
- ~~[STM6054 Tram Driver Approval Letter](#)~~
- ~~[STM6056 Provisional Tram Driver's Authorisation/Record Card](#)~~
- [STM6056 Trainee Tram Driver Examination Marking and Summary Sheets](#)
- STM6057 Tram Driver Examination Paper
- STM6058 Position Description of Tram Driver
- STM6059 Trainee Tram Driver ~~Authorisation~~-Record Card
- STM6062 Tramway Operations Handbook
- STM6115 Operations/~~Reassessment~~ Performance Audit
- ~~[STM6137 Trainee Tram Driver Examination Marking and Summary Sheets](#)~~
- STM6121 Authorisation Lists –Traffic List

## 5. Definitions

IDC – Identification Card.

RSM – Rail Safety Manager

STM - Sydney Tramway Museum, a trading name of South Pacific Electric Railway Co-Operative Society Limited.

Board - The Board of Directors at the Sydney Tramway Museum.

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## 6. Actions

### 6.1 General

The STM Driver Examiners will be responsible for ensuring that they follow this procedure when training a new driver, assessing drivers who want additional accreditation on non standard tramcars or re-assessing existing drivers whose accreditation is about to become expire.

It should be noted that drivers who are qualified only as **Works drivers** CANNOT drive passenger trams on Traffic days with passengers on board and **Traffic** drivers CANNOT automatically assume that they can drive WORKS trams.

STM Driver Examiners will be assessed or re-assessed by the Workshop Manager.

Progress of the training is discussed between the trainer and trainee by either phone call, email or face-to-face.

### 6.2 Trainee Drivers Definition

The trainee must be 19 years or older and have completed at least **one** complete roster period as a qualified conductor before applying to become a trainee driver. Once the trainee driver has completed the driver instruction course, he/she must complete ~~at least 7 trips on each of~~ the trams specified on the *Trainee Tram Driver Authorisation Record Card (STM6059)* or by the Examine or Training and Assessment Committee.

### 6.3 The Process for Assessing a Trainee Driver

The steps in the Driver training process are:

- a) The candidate will request a *Crew Training Application Form (STM5009)*, from the Operations Manager or the Traffic Manager to become a Tram Driver.
- b) The trainer will either send the *Crew Training Application Form (STM5009)* to the candidate or the candidate can complete the *Crew Training Application Form (STM5009)* at the beginning of the “one day” driver-training course. If the form has been sent to the candidate, he/she must complete application form and either send it to the Operations Manager before the ~~driver training~~ driver training course or bring the form along to the driver-training session.
- c) The trainer will also give the trainee the *Position Description for a Tram Driver (STM6058)*.
- d) The trainer will remind the trainee to look at *Safety in Tramcar Cabs Procedure (STM6022)*.
- e) At the start of the Driver Training session, the trainer should check the details on the application form to ensure nothing has been missed or that there is nothing that would stop the candidate from becoming a Driver.
- f) The trainer allocates a day for the Driver Training and notifies all candidates of the date.
- g) The trainer should check that the candidate has the correct health assessment for a tram driver (minimum of Category 2). If not, he requests that the trainee completes the correct medical assessment before becoming a trainee driver.
- h) On the allocated date, the trainer gives the training course as per *Drivers Training Curriculum located at the back of this procedure*.
- i) Once the training has been completed, the trainee is issued with a *Trainee Tram Driver Authorisation Record card (STM6059)* that must be completed for each trip that the trainee does during their “On road” training. The trainee is now a Trainee Driver Grade 3.
- j) It is to be stressed to the trainee that they must carry, on their person, their *Identification Card (IDC)* that must be produced if requested by an officer from the Office of the National Safety Regulator (ONRSR), the Officer-in-Charge, the Rail Safety Manager or any STM officer holder. If the ID card is lost it must be immediately reported to the Rail Safety Manager so that a new ID card can be issued.
- k) The trainer needs to confirm that the trainee has access to a copy of the *Tramway Operations Handbook (STM6062)* on the STM Web site for future reference.

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- l) The trainer suggests that the trainee reviews the latest roster to determine the suitable days for the “On road” training. When the trainee does the "On road" training it is under the supervision of a qualified driver who is designated as a *Driver trainer*. It is up to the trainee to plan his/her training days and notify the relevant OIC that he/she will be attending those days to ensure that there are not other trainees on those days. The *Driver trainers* should be identified on the latest roster.
- m) During the “On road” training the Driver trainer observes the trainee’s performance and provides guidance and coaching to the trainee when required.
- n) Once the "On road" training has been completed, the trainee sends to *Trainee Tram Driver Authorisation/Record sheet (STM6059)* to the Operations Manager as proof that he/she has completed the “On road” training and to asks to do the written exam.
- o) The Operations Manager allocates a “Candidate number” to the exam paper and sends the *Tram Driver’s Exam (STM6057)* to the trainee.
- p) The trainee completes Driver’s exam and returns it to Operations Manager for marking.
- q) The Driver’s Exam paper is copied and copies send to the Rail Safety Manager and the Traffic Manager for assessment.
- r) The managers mark the exam paper and return the results, with comments on the *Trainee Driver Examination Markers Exam Results sheet (STM6137STM6056)*, to the Operations Manager who collates the results on the *Trainee Driver Examination Marking Summary Sheet (STM6137STM6056)* for discussion at the next Training & Assessment Committee meeting.
- s) The Operations Manager notifies the Training and Assessment Committee whether the trainee has passed or failed the written examination. If the trainee has failed then he/she is invited to complete another test or to be verbally examined on suitable questions. The latter has been introduced for trainees who have trouble with expressing themselves in writing. If the trainee fails the written (or verbal) test then he/she is told to further study the Tramcar Operations Handbook and apply, in 1 month’s time, to do the test again.
- t) If the trainee has passed both the written (or verbal) and the medical tests then the Operations Manager notified the trainee that the practical examination must be completed and the trainee organises a suitable time with the examiner. The examiner must complete the *Examiners Checklist Tram Driver Assessment report (STM6147STM6053)*. The checklist is then given to the Operations Manager.
- u) If the trainee fails the practical test then the trainee is asked to do more practices by doing an additional 20 trips on the tramcar types that he/she failed on using the form *Trainee Tram Driver Record sheet (STM6059) Provisional Driver’s Authorisation/Record Card (STM6056)*. Once completed, the trainee again requests the Operations Manager to organise a further practical test.
- v) The results of the practical examination test (*Operational Performance Audit Report – STM6115*) are passed back to the Training-and Assessment Committee for review of the trainee’s record.
- w) If Training and Assessment Committee approves the appointment, the Board is asked to ratify the appointment as a Driver Grade 4 at the next Board meeting.
- x) Once Board has ratified the appointment, the Operations Manager notifies the trainee by sending ~~the~~ *Driver’s Approval Letter (STM6054)* ~~an email to the trainee~~ and sends a copy ~~of the letter~~ to the Roster clerk so that the trainee can be included in future rosters. Also the trainee’s member record is updated on the STM Members Database (~~STM6159STM6121~~) with the new competencies and the training dates.
- y) If the driver passes the assessment then the Rail Safety Manager updates the details on the *Authorisation Lists –Traffic List (STM6159)* and place the list in the Traffic Office.

### **6.4 The Process for Assessing an Existing Driver for Additional Accreditations**

An existing driver may apply to be accredited on non-standard trams. The driver needs to contact a member of the Training & Assessment Committee or by sending a letter or e-mail to the Committee to apply for training and accreditation of non-standard trams. Also the driver may respond to a notice in SPER News about a proposed training course.

#### **6.4.1 The process to gain more accreditations is:**

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- a) The driver requests approval to be trained and tested on a particular non-standard tram type;
- b) Before progressing the driver must prove that he/she has completed at least 35 trips on standard tramcars.
- c) The driver completes the training on the particular non-standard tram type.
- d) The examiner tests the driver completing the required pages of the *Operational Performance Audit Report (STM6115)* and signs the forms;
- e) The checklist, whether the driver passed or failed is then presented to the next Training and Assessment meeting for the driver to be either approved or declined as an accredited Driver of the requested tram type.
- f) If the driver fails the test, he/she will NOT be allowed to re-apply for training for another 6 months.
- g) The Operations Manager notifies the driver that he has passed or failed the test by ~~using the Driver's Approval Letter (STM6054)~~ email with a copy to the Rail Safety Manager so that the details can be updated on the *Authorisation Lists –Traffic List (STM6121)*.
- ~~h) If the driver passes the assessment then the Rail Safety Manager is notified and updates the details on the Authorisation Lists –Traffic List (STM6121).~~

### **6.5 The Process for Re-Assessing an Existing Driver**

Before a driver's re-assessment becomes due, the Operations Manager notifies the driver that he/she must be re-assessed.

#### **6.5.1 The process to re-assessment is:**

- a) The Rail Safety Manager gives the Examiner a list of drivers who need to be re-assessed;
- b) The Examiner contacts the driver to organise a suitable time for re-assessment;
- c) The Examiner tests the driver completing the *Operations/Reassessment form (STM6115)* and signs the forms;
- d) The Examiners checklist, whether the driver passes or fails, is then presented to the next Training and Assessment meeting for the driver's to be either approved or made a Provisional Driver. A Provisional Driver means that the driver needs more practice and can only drive with a trainer or examiner as an Observer.
- e) The Operations Manager notifies the driver (verbally or by e-mail) that he/she has either passed or failed the re-assessment test.
- f) If the driver has failed he/she is also issued with a *Provisional Driver's Authorisation/Record Card (STM6056)* and the details of where more practice is required are placed on the *Provisional Driver's Authorisation/Record Card (STM6056)*. This practice must be done under the supervision of a trainer or examiner.
- g) Once the Provisional driver has completed the required number of trips under supervision, the provisional driver hands the ~~*Trainee Tram Driver Record sheet (STM6059)*~~ *Provisional Driver's Authorisation/Record Card (STM6056)* to the Operations Manager who organises for the provisional driver to redo the re-accreditation test.
- h) If the driver passes the assessment then the Rail Safety Manager is notified and updates the details on the *Authorisation Lists –Traffic List (STM6121)*.

### **6.6 The Process for Re-Assessing an Existing Driver**

A STM Driver Examiner will be appointed after assessment by the Workshop Manager and re-assessed every 5 years by the Workshop Manager. The Workshop Manager has a very detailed and intimate working knowledge of each tramcar operating at STM, as he is responsible for the maintenance of these trams. He must know how each car operates, performs and all of the functions of each tramcar so as to maintain these trams. He has also reviewed all of the tramcar manuals produced to date.

The reason for nominating the Workshop Manager is that there is no other Museum in Australia and New Zealand who has such a range of non-standard tramcars. The Workshop Manager not only maintains the tramcars but also knows how each operates in detail, having:

- Been to San Francisco to talk to the maintenance team about the PCC tramcar;

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- Met the manager of the Nagasaki Electric Tramways, when he visited Australia, to talk about the Nagasaki tram;
- Been in contact with other overseas tramways regarding their trams; and
- Been in contact with authorities in Melbourne and Adelaide with regard to their tramcars.

Examples of these tramcars being:

- 1014 the PCC tramcar from San Francisco – the only one outside the USA;
- 1054 the Nagasaki tramcar from Japan – again the only tramcar outside Japan; and
- 2666 from the Munich Tramway Network.

The assessment and re-assessment will entail a thorough review of the STM Driver Examiner in the following areas:

- a) A detailed knowledge of each Tramcar's operation;
- b) The emergency braking procedures;
- c) The differences between the various types; and
- d) His driving ability and techniques over all of the Museum lines, including “start of day” and “end of day” procedures.

STM6115 is to be completed by the re-assessor after the re-assessment and the form is passed to the Rail Safety Manager for discussion at the next Training & Assessment Committee meeting.

### **6.7 The Process for Assessing a Tram Driver from Another Tram Museum**

From time to time the Sydney Tram Museum receives requests from tram drivers from other tram museums wanting to drive a tram at Loftus.

However the following must be observed before a visiting tram driver can drive:

- a) The tram driver must be fully accredited at their museum, by showing their driver qualifications;
- b) Must have explained and understood the STM operating procedures and the Traffic/Safety Notices (e.g. Staff & Ticket, Army Hill, crossing the Princes Highway, etc.);
- c) Must be assessed and confident on his/her abilities, by a qualified STM Driver Instructor, on the trams to be driven;
- d) At ALL TIMES must have a qualified STM tram driver, who is qualified for the particular trams, standing beside the visiting tram driver regardless of their medical category; and
- e) The visiting tram driver cannot drive trams at Loftus more than 2 days in any one year.

If a visiting tram driver wishes to drive trams more than twice in the one year he/she must complete the standard STM driver training course which would also include the conductor training, the formal driver training and the required number of trips driving under supervision. Also this would have to be spread over a number of roster periods not completed in 1 roster period.

### **6.8 Additional or Alternative Examiners**

The STM Board may, on the recommendations of the Chief Engineer or the Workshop Manager, appoint other qualified persons to be additional Driver Examiners or to substitute for the Driver Examiner during periods when the Driver Examiner is unavailable.

### **6.9 Driver Training Curriculum**

The training of a new driver typically would last 2 days. It is usually conducted with up to three trainees in the class.

The following must be covered during the training session on Day 1 - Morning:

- 1) Have the candidate sign ON in the Workshop foyer and collect their Crew Training Application form (STM5009);
- 2) Have the candidate complete the *Crew Training application form (STM5009)* (if not done already);
- 3) Explain the various parts of a tramcar;
- 4) Explain, in general, how a tram works;
- 5) Explain the driver's duties and the driving equipment.

The following must be covered during the training session on Day 1 - Afternoon:

- 6) Demonstrate the preparation of cars for traffic and examination of equipment. Fill out the *Tramcar Pre-operation and Stabling Inspection Checklist* (STM6031);
- 7) Explain the procedure for changing ends;
- 8) Explain the spacing between trams when operating in convoy;

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- 9) Explain placing sand on rails;
- 10) Explain the securing of unattended trams;
- 11) Explain trams stalled on dirty rails;
- 12) Explain defective vehicles and equipment;
- 13) Explain controller interlocking;
- 14) Explain the operation of the life shields;
- 15) Explain the Staff and Ticket working and *Proceed Order form* (STM6037);
- 16) Explain the process for inspection the tracks (both Sutherland and RNP) on the first trip of the day and completing the *Starter's Journal* (STM6019) after the inspections.
- 17) Practice driving on self lapping braked cars including a "hill start" on Army Hill;
- 18) Explain and demonstrate emergency braking. During a trip, give 3 buzzer stops but don't warn them;
- 19) Demonstrate and practice stabling of trams in the shed including plugging the battery chargers;
- 20) Tram crews are not to take phone calls, talk, text or receive text messages whilst the trams are in motion. They must wait until the tram arrives at the terminus. Unless in emergency situations they can make an emergency phone call to the OIC or emergency services when the tram stops. *However the conductor may answer a call only on the Museum's mobile phone whilst the tram is moving;* and
- 21) Have the candidate sign OFF in the Workshop foyer.

The following must be covered during the training session on Day 2:

- 1) Have the candidate sign ON in the Workshop foyer;
- 2) Refresh instructions given on Day 1;
- 3) Have the candidate prepare the tram and give them a fault to find;
- 4) Practice driving on manual lapping braked cars, including a controlled descent of Army Hill using hand brake in "O" car or similar;
- 5) More practice on self-lapping and manual lapping brakes;
- 6) Demonstrate emergency braking on remote control cars;
- 7) Demonstrate emergency braking on two motor cars;
- 8) Demonstrate how to cut-out motors on 'P' type cars;
- 9) Explain towing procedures in general;
- 10) Explain the use of the "DO NOT REMOVE" (red stick);
- 11) At the end of the training day:
  - a. ~~give~~Give each candidate of the details where the Tramway Operating Handbook is located, if they have not already been given one;
  - b. ~~handouts~~Handouts to trainees the *Trainee Driver ~~Authorisation~~-Record Card* (STM6059);
  - c. Give the candidates an overview of the Safety Management System and copies of the *General Safety Induction* (STM6017) unless they have been already given to them before; and
  - d. Explain that the SMS documents are now on the STM web site.
- 12) On going training plans  
Explain that training is to continue over the next few months under supervision of qualified Traffic staff to gain experience. Candidate must complete at least 30 trips under supervision before sitting for the Driver's exam. Each trip must be entered on the Trainee Driver Authorisation Record Card and signed by the supervisor.
- 13) Explain the next stage, that of being a Driver Grade 4 if the trainee passes both the written and practical examinations. If he/she fails the written test, then another written test will be required to be completed. If he/she fails the practical examination then more driving under supervision will be required before again doing another practical examination.
- 14) It is to be stressed to the trainee that they must carry, on their person, their Identification Card (IDC) that must be produced if requested by an officer from the Office of the National Rail Safety Regulator (ONRSR), the Officer-in-Charge or the Rail Safety Manager. If the IDC is lost it must be immediately reported to the Rail Safety Manager so that a new IDC can be prepared
- 15) Have the candidates sign OFF in the Workshop foyer.



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## 7. DRIVER TRAINING CHECKLIST

**Trainee Driver Name:** ..... **Member No.** .....

**Dates of Training:** -DAY 1 ..... DAY 2 .....

**Trainer's Name:** ..... **Member No.** .....

A TRAINING PLAN – DAY 1

- |    |  |  |
|----|--|--|
| 1  | Have the candidate sign ON in the Workshop foyer                             |  |
| 2  | Complete <i>Crew Training Application Form</i> (STM5009) by candidate        |  |
| 3  | Explain various parts of a tram  |  |
| 4  | Explain, in general, how a tram works  |  |
| 5  | Explain the driver's duties and the driving equipment                        |  |
| 6  | Demonstrate trams of cars for traffic and examination of equipment           |  |
| 7  | Explain the procedure for changing ends                                      |  |
| 8  | Explain spacing between trams when operating in convoy                       |  |
| 9  | Explain sanding on rails   |  |
| 10 | Explain the securing of unattended trams                                     |  |
| 11 | Explain trams stalled on dirty rails   |  |
| 12 | Explain defective vehicles and equipment                                     |  |
| 13 | Explain controller interlocking  |  |
| 14 | Explain the operation of the life shields                                    |  |
| 15 | Explain the Staff and Ticket working and <i>Proceed Order form</i> (STM6037) |  |
| 16 | Explain the first trip inspections and signing the Starter's Journal         |  |
| 17 | Practice driving on self lapping braked cars                                 |  |
| 18 | Explain and demonstrate emergency braking                                    |  |
| 19 | Demonstrate and practice stabling of trams in the shed                       |  |
| 20 | Have the candidate sign OFF in the Workshop foyer                            |  |

B TRAINING PLAN – DAY 2

- |    |  |  |
|----|--|--|
| 1  | Have the candidate sign ON in the Workshop foyer   |  |
| 2  | Refresh instructions given on Day 1  |  |
| 3  | Practice driving on manual lap braked cars   |  |
| 4  | More practice on self-lapping and manual lapping brakes  |  |
| 5  | Demonstrate emergency braking on remote control cars   |  |
| 6  | Demonstrate emergency braking on two motor cars  |  |
| 7  | Demonstrate how to cut-out motors on 'P' type cars   |  |
| 8  | Explain towing procedures in general   |  |
| 9  | At the end of the training day:  |  |
|    | a. Give each candidate of the details where the Tramway Operating Handbook is located, if they have not already given one; |  |
|    | b. Handouts to trainees <i>Trainee Driver Record Card</i> (STM6059):   |  |
|    | c. Give the candidates an overview of the Safety Management System   |  |
| 10 | Explain Ongoing training plans (i.e. <i>Provisional Drivers</i> )  |  |
| 11 | Have the candidates sign OFF in the Workshop foyer   |  |

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