

General Instructions for Employees Engaged
On The Construction, Repair and Maintenance
of Electric Trams.

Revision -
Issued November, 1948.

1. These instructions are issued for the guidance of employees at the Tramway Depot, and a strict adherence to them is required in order to ensure:-
 - (a) Safety to employees themselves
 - (b) Welfare of Commission's plant and rolling stock.

2. FIRST AID.
 - (a) In the event of an accident occurring, treatment should be applied, and the Senior employee or person in charge on the site, must exercise his judgment as to whether or not the injured man requires attention by a doctor or at a hospital. If any doubt exists as to the seriousness of the injury, medical aid must be sought at once.
 - (b) In the case of apparent death from electric shock, artificial respiration must be commenced at once and a doctor called. (See Appendix "A").

3. REPORTS OF ACCIDENTS.
 - (a) In the event of an accident involving injury to a person, whether in the Commission's employ or not, or damage to property of the Commission or other property, a report must be made to the Depot Foreman.
 - (b) On no account is liability to be admitted in any manner, nor are written statements to be given to any persons other than officers of the Commission.

4. FIRST-AID OUTFITS.

A first-aid outfit is kept in the Foreman's office. For after hours use an emergency outfit is kept in the ~~Machine Shop~~. The Depot Foreman must be notified of useage of contents of the first-aid outfit, in order to requisition material to replace any used.

5. FIRST-AID INSTRUCTION.

Employees are expected to avail themselves of the facilities provided for instruction in first aid, and must make themselves familiar with the notes in Appendix "A" on the emergency treatment of burns and wounds.

6. APPARENT DEATH FROM ELECTRIC SHOCK.

Employees must avail themselves of the facilities provided for instruction in the prone pressure method of artificial respiration (see Appendix "A"), and must become proficient in the practical application of the method so that, if the occasion should arise, they will be able to perform correctly the operations on a victim of an electric shock.

7. All employees must sign a form corresponding with that shown in Appendix "B".

*Depot on
West wall*

8. FIRE PRECAUTIONS.

Care must be exercised that all inflammable and other material is stored in such a manner that risk from fire is minimised.

The Tramway Depot is equipped with approved fire extinguishers, also hydrant and hose. Employees must be familiar with the location and methods of use of these appliances.

9. LADDERS.

Whenever a ladder is being used, care must be taken to see that the foot of the ladder is not likely to slip. The ladder used for ascending to the roof of trams should have the hook on the foot-rope engaged on the tram chassis to prevent slipping.

10. RESPONSIBILITY FOR TOOLS & APPLIANCES.

Each employee is responsible for tools and appliances issued to him, and he must report to his senior officer any loss, breakage, or theft. See Appendix "C".

Each employee must see that he uses only tools entirely suitable for the particular work in hand. Unsuitable or wrong size spanners must not be used, and the attention of the Depot Foreman drawn to any worn or defective tools.

11. ACCESS TO TRAM DEPOT.

(a) No stranger or visitor is to be permitted to enter the Tram Depot unless he has received permission from the Manager or Tramways Superintendent to do so.

(b) No employee of the Commission is to be allowed in any portion of the Depot other than where he is legitimately working.

(c) Trespassing by unauthorised persons must be immediately checked and reported.

11. GIVING INFORMATION.

On no account must any information regarding apparatus, faults, operations or any other matter concerning the business of the Commission be given to any person other than responsible officers of the Commission.

12. PRECAUTIONS BEFORE STARTING TRAMS BY DEPOT STAFF.

Irrespective of the location or purpose of moving a tram, the employee must always first sound the foot gong and give ample opportunity for any person nearby to give warning or move clear before actually moving the tram.

13. WORKING ON ROOF OF TRAM.

Before any employee commences any work on the roof of a tram in the Depot over which a trolley wire is suspended, he must first see that the road circuit breaker is opened, and shall hang his identification disc on the circuit breaker. No employee must close the circuit breaker when so opened, without the sanction of the employee whose disc is on the circuit breaker. Should any additional employee undertake further work on the same road necessitating the opening of the circuit breaker, he must also hang his disc on the circuit breaker. On completion of work the circuit breaker must only be closed by the person removing the last disc from the circuit breaker.

TRAMS GENERALLY.

Before commencing work, the employee must first remove the reversing key from the tram controller and place same in his tool box. The key must be replaced on the tram on completion of job.

16. OUT OF SERVICE LABELS.

A label marked "Defective - Not for Service" must be placed on all trams which, through defect, have been withdrawn from service, and all other trams on which repairs are in progress or required. Trams bearing such labels must not be moved without knowledge of the particular defect existent.

17. INSPECTION LABELS.

Trams to be withheld from service for routine inspection must have an "Inspection" label attached to same, and such trams must not be allocated for service until inspection is complete and the employee engaged on inspection removes the label.

18. RIDING CYCLES IN DEPOT BUILDING.

All cycles must be placed in the racks provided, and in no case shall cycles be ridden in the Depot buildings.

19. REMOVAL OF DEBRIS, ETC.

All surplus material, debris, etc., remaining after the completion of work must be cleaned up. Short lengths of wire must not be left about as birds pick these up when nesting, and thus endanger overhead lines by trailing the wire over live conductors.

20. Employees are required to exercise great care to ensure that no grease or dirt from their overalls is found on tram seats etc.

The following rules for Motormen and Conductors will also apply to employees at the Tram Depot:-

21. They shall willingly obey orders given by the Commission's responsible officers.

22. Special Orders bearing the signature of the Manager shall be obeyed whilst in force. Should a Special Order conflict with any Rule it shall over-ride such Rule.

23. When returning ^{SINGLE TRUCK.} a tram to Depot, the trolley pole must be turned at entrance so as to have the pole in the trailing position for the run out.

24. They shall not make use of improper language, or enter into arguments with the public or with their fellow employees, whatever be the circumstances.

25. When off duty they shall not congregate on any tram, nor shall more than four employees travel on the same tram when off duty.

26. No employee when off duty shall travel in the Motorman's cabin or converse with any employee on duty.

27. Gambling on the Commission's premises or on the Commission's vehicles is strictly forbidden.

28. No employee shall absent himself from duty or alter his appointed hours or exchange duty with any other employee without the special permission of his superior officer.

29. Personal illness or accident shall be reported at once in order that a substitute may be provided.

30. A medical certificate or statutory declaration shall be furnished for absence extending beyond two (2) days and in cases of shorter absence if called for.

31. One week's notice of intention to leave the Commission's employment must be given in writing - verbal notice will not be accepted.

32. CHANGING LAMPS IN TRAM LIGHTING CIRCUITS.

Lamps in tram destination signs, ^{x CABIN & ARRON} and headlights are in earthed situations, and such lamps must not be changed without first switching off the tram lighting circuit.

33. REPLACING LAMPS WITH BROKEN BULBS.

On no account must lamp caps be removed from lamp holders without first ensuring that the supply to the lamp is switched off. Remember that when the glass bulb is broken the wires to the filament are exposed.

34. REMOVING POLES FROM TROLLEY WIRE IN DEPOT BUILDING.

Upon completion of work upon any tram which is not being placed into running service, the trolley pole must be removed from the overhead wires and rope held down on the hook provided.

APPENDIX "A"

FIRST AID TREATMENT

1. TREATMENT FOR ELECTRIC SHOCK.

These instructions must be carefully followed whatever the apparent condition of the victim, and are set out here as an adjunct to the practical demonstration and instruction that is afforded periodically.

(1) The victim must be released from the circuit as quickly as possible. Delay is serious and may cause death.

(2) In releasing the victim be careful to avoid receiving a shock. If it can be seen how the victim has received or is receiving a shock, avoid a similar contact.

If the current cannot be immediately switched off, every effort must be made to release the victim by methods dependent on the voltage involved. Dry rope, rubber gloves, or a hat, clothes, or a piece of dry wood, or any dry non-conductor may be used; a rubber mat or dry boards may be used to stand on.

Seize the victim by some portion of his body, or preferably of his clothes, which is in contact with the ground or platform upon which you yourself are standing.

If the victim is held to the conductor by the contraction of his muscles, free him by a push which will not endanger yourself. The possibility of causing a circuit to open off automatically by throwing a grounding or short circuiting wire over it at a point where the resultant arc will not cause personal injury should not be overlooked, but contact with this wire when it touches the circuit must be avoided.

Artificial respiration must be commenced at once, and a doctor called immediately.

(3) Prone Pressure Method of Artificial Respiration:- As soon as victim is clear of the live conductor, quickly feel with your finger in his mouth and throat, and remove any foreign bodies (such as false teeth, tobacco, chewing gum etc.), which may tend to cause an obstruction to the air passages.

Do not stop to loosen clothes - DELAY IS VERY SERIOUS.

Place the patient face downwards with one arm extended and the other arm bent at elbow, resting the face on the hand.

Kneel in a position straddling the patient's hips, the knees about level with the patient's trouser pockets.

Place the palms of the hands, one on each side, on the small of the back, the thumbs about 2 inches apart and parallel, and the little finger over the lowest rib.

Keeping the arms straight, gradually swing forward so as to produce firm but not violent pressure on the patient's chest (internal organs may be injured with violent pressure). This operation should take about two or three seconds. The lower part of chest and abdomen are thus compressed, and air is forced out of the lungs. (Figure 1).

Now immediately swing backwards so as to completely remove the pressure, thus returning to the position in Figure 2. This causes the chest walls to expand, and the lungs are thus supplied with air. Do not take your hands from the patient's body.

APPENDIX "A" CONTINUED.

After a two seconds' interval repeat these forward and backward movements (compression and release), the complete operation taking four or five seconds, or being performed twelve to fifteen times per minute. Continue till the patient commences breathing. This may take several hours, and artificial respiration must be continued without interruption till breathing is restored, or the doctor has pronounced life extinct.

If, when natural breathing has been restored, and, as sometimes happens, again tends to fail, artificial respiration must be resorted to again.

Under no circumstances must liquids be given until the patient is conscious and able to swallow.

After breathing has been restored, gently turn the patient over on his back, and loosen all tight clothes etc. Apply hot bottles, etc. - these may be placed between the legs and armpits, or applied to the feet. Have the patient put to bed as soon as convenient and watch to see that breathing does not fail.

If the patient is able to swallow, drinks such as hot strong coffee or tea may be given with care.

Alcoholic stimulants should be given only under a doctor's instructions.

Other Measures where Assistance is Available:- While the operator is carrying out artificial respiration, others present may apply warmth to patient's body and limbs with blankets, hot bottles, etc. These last-named should be tested, otherwise burns may be caused.

Do not crowd around patient.

Do not give up too soon.

Look at the feet for burns.

2. TREATMENT OF BURNS.

Burns are frequently associated with electrical accidents, and must be treated as soon as possible to prevent further shock to the patient (the danger from burns is sepsis and shock). All large burns should have treatment by a doctor, especially electric burns.

Burns are of three kinds -

1st degree - skin is reddened.

2nd degree - skin is blistered.

3rd degree - skin is burnt or charred.

If burns are caused by an acid, apply water freely to the affected part to neutralise the effect of the acid, and remove acid-soaked clothes or boots as quickly as possible. Then apply a solution of lime water, or a mixture of baking soda and water, and cover the part with gauze or lint after wetting it in the solution used; finally cover the part with cotton wool and bandage.

Vinegar or lemon juice in equal parts of water will neutralise burns caused by alkalies.

If burns are caused electrically, apply ~~peric acid~~ ^{SALINE} solution (in first aid chests) to the affected parts, and dress with gauze or lint; cover with cotton wool and bandage. If the hand is burnt, place the arm in a sling.

APPENDIX "A" CONTINUED.

A solution of salt and warm water is a good emergency substitute in treating most cases of burns.

If the clothes stick to the patient's flesh, do not attempt to pull them off, but cut around and soak the part with the solution used, and let the doctor remove parts that are adhering to the flesh.

It is not advisable to use oil, as oil may not be sterile, and may cause sepsis.

Under no circumstances use tincture of iodine on burns.

3. TREATMENT OF WOUNDS.

Immediate treatment of wounds is:-

- (1) To arrest the bleeding.
- (2) To cleanse the wound.
- (3) To protect the wound from becoming septic by applying some antiseptic dressing.

Do not touch the wound with dirty hands or instruments.

Let the wound bleed a little - this will wash away germs, etc.

If the wound is dirty, wash with ^{DETTOL} ~~lysol~~ and hot water, or apply ^{PROFLAVINE SOLUTION} ~~tincture of iodine~~. Apply clean dressing, and bandage the injured part. Salt and hot water is a good substitute if ~~lysol or tincture of iodine~~ is not available.

^{DETTOL} ~~lysol~~ ^{PROFLAVINE SOLUTION} ~~tincture of iodine~~

If any doubt exists as to the seriousness of the wound, see that the patient is examined by a doctor.

APPENDIX "B"

State Electricity Commission of Victoria

FORM FOR SIGNATURE BEFORE EMPLOYMENT AS

I am not subject to giddiness, defective sight, or any physical defect which might cause me to lose my balance when working at a height above the ground.

I am aware of the meaning of the word "live" as applied to a wire connected to an electricity supply, and that contact with such a wire is highly dangerous, and that at all voltages such contact is liable to deprive a person of the use of his muscles or cause him to lose his balance.

I am aware of the electrical circuit through a tram car, and that the rails form part of the circuit of a tramway system.

I know the various insulators and other fittings on overhead work and their uses, and that any wires should be treated as "alive" unless it is definitely known that they are "dead" or effectively connected to earth.

I undertake to notify my senior officer if at any time I am unfit to perform work in elevated positions without risk to myself or others, or to the Commission's property.

Signed _____

Date _____

Witness _____

Date _____

APPENDIX "C"

State Electricity Commission of Victoria

I, _____ as a
condition of my employment by the State Electricity Com-
mission of Victoria, agree that all tools and appliances issued
me by an officer or other representative of the Commission
shall, on demand by such officer or representative, be
returned in good order and condition, reasonable wear and
tear excepted, or failing the return of such tools and
appliances in good order and condition, their value shall
be deducted from any moneys due to me as wages or
otherwise.

Signature of Employee _____

Date _____

Witness _____

Date _____