

Engineering Procedure
Electrical Distribution Unit

PR D 78503

Low Voltage Access Permits

Version 1.1

Date in Force: 2 July 2018

Procedure

Approved by: Paul Poynton
A/Professional Head
Electrical Engineering
Engineering System Integrity

Authorised by: Jonathon McKinnon
Engineering Technical
Publications Manager
System Integrity

Disclaimer

This document was prepared for use by persons in connection with works on or near the rail network electricity system operated by Sydney Trains. Sydney Trains makes no warranties, express or implied, that compliance with the contents of this document shall be sufficient to ensure safe systems or work or operation. It is the document user's sole responsibility to ensure that the copy of the document it is viewing is the current version of the document as in use by Sydney Trains. To the extent permitted by law, Sydney Trains excludes any and all liability for any loss or damage, however caused (including through negligence), which may be directly or indirectly suffered in connection with the use of this document.

Copyright

The information in this document is protected by copyright and no part of this document may be reproduced, altered, stored or transmitted by any person without the prior consent of Sydney Trains.

Document control

Version	Date	Author/ Prin. Eng.	Summary of change
1.0	6 July 2015	Chris Leung	First issue as a Sydney Trains document, rebranded from previous RailCorp SMS-06-EN-0584 V1.2
1.1	2 July 2018	Chris Leung	3 Yearly Review

Summary of changes from previous version

Summary of change	Section
Minor updates	

Table of Contents

1.	Purpose and scope	4
2.	Responsibility	4
3.	System Overview	4
4.	General Requirements	5
4.1.	Additional Work Not to be Carried Out.....	5
4.2.	Deletions or Alterations	5
4.3.	Multiple Work Groups or Work Locations	5
4.4.	Personnel Registers	5
4.5.	Multiple Shifts	6
4.6.	Relief of Permit Holder	7
4.6.1.	Relief of Permit Holder whilst Personnel Register in use	7
4.6.2.	Relief of Permit Holder whilst Personnel Register is not in use	7
5.	Details Specified on the Permit	7
6.	Writing, Checking, Instructing, Issuing and Retrieving Permits	8
7.	Permit Holders	8
7.1.	Eligible Persons	8
7.2.	Instruction of Permit Holders.....	8
8.	Responsibility of the Person Instructing the Permit Holder	8
8.1.	Preparation.....	8
8.2.	Instruction of Permit Holder	9
8.3.	Feedback from the Permit Holder	9
8.4.	Permit Instructor to ensure Prospective Permit Holders sign the Permit.....	10
8.5.	Permit Instructor to sign the Permit.....	10
8.6.	Instruction of Permit Holder at a Meeting Prior to the Work	10
9.	Responsibility of the Person Issuing the Permit	10
9.1.	Preliminary Checks	10
9.2.	Issuing of Permit	11
10.	Return of the Permit	11
11.	Responsibility of the Person Retrieving the Permit	12
11.1.	Preliminary Checks	12
11.2.	Cancellation of the Permit.....	12
12.	Procedure in case of a Permit being Lost	13
13.	References	13
14.	Appendices	13
Appendix A	Sample "Low Voltage Access Permit" Form	14
Appendix B	"Low Voltage Access Permit" Form - Reverse Side	15

1. Purpose and scope

To describe the procedures required for the issuing and cancellation of a Sydney Trains Low Voltage Access Permit (PR D 78503 FM 01 Low Voltage Access Permit).

A Low Voltage Access Permit is the primary safety document used in relation to work on or near low voltage equipment outside Substations where the work requires the equipment to be isolated to allow the work to proceed.

Refer to clause 8.1 of PR D 78700 Working around Electrical Equipment for situations when a Low Voltage Access Permit needs to be issued. For further information on the applicability of a Low Voltage Access Permit, see PR D 78500 Electrical Permits.

Throughout this instruction and for simplicity the term 'Low Voltage Access Permit' is, where appropriate, abridged as just 'Permit'.

2. Responsibility

Nominated Electrical Engineers or electrical representative in the area concerned are responsible for reviewing Permits returned to them upon completion of the work covered by the Permits.

This instruction sets out specific responsibilities for persons undertaking the following tasks:

- a) Writing and checking Permits
- b) Instructing Permit Holders
- c) Issuing and retrieving Permits
- d) Carrying out electrical tests – Persons undertaking the tests are responsible for ensuring that the testing is carried out safely

These persons shall have the appropriate Authorisation.

3. System Overview

A Low Voltage Access Permit is issued by an Authorised Person (refer section 6) to a Permit Holder as confirmation that:

- the specified low voltage equipment has been isolated and proved dead to provide an Electrically Safe Work Area, and
- the isolated condition will remain as stated until the Permit has been returned and cancelled.

The person to whom the Permit is issued will normally be the person in charge of the work party. If only one person in the work party is required to work on or near the equipment, the Permit shall be issued to that person. This person shall understand the Electrically Safe Work Area.

When the Authorised Person issuing the Permit is also the person in charge of the work party, the Permit may be issued to themselves. This person shall understand the Electrically Safe Work Area.

A Low Voltage Access Permit may be used to define an area which is clear from exposed low voltage equipment and where it is safe to work. In this case, no low voltage equipment need be isolated and the section of the Permit specifying switching operations is to be marked "NOT REQUIRED".

A Low Voltage Access Permit is not required for work on disconnected equipment.

A Low Voltage Access Permit may not be required for work on isolated Low Voltage equipment if the following conditions are met:

- a) all work party members are either an Authorised Person (Low Voltage) or Qualified Electrician as defined in PR D 78701 Personnel Certifications - Electrical Authorisations, and
- b) a risk assessment has established that the work can be safely performed in accordance with:
 - i) PR D 78402 Work on the Low Voltage Distribution System and
 - ii) D2013/80873 Work on Low Voltage Installations.

4. General Requirements

4.1. Additional Work Not to be Carried Out

No work is to be carried out on or near the isolated equipment other than that specified on the Permit.

4.2. Deletions or Alterations

No deletions or alterations may be made to the work or operating details on the Permit once it has been issued or if the Permit Holder has been instructed in accordance with section 8.2. Should it be necessary to vary the work specified after the Permit has been issued, the Permit shall be cancelled and a new Permit issued for the revised work.

4.3. Multiple Work Groups or Work Locations

Where a single person in charge can adequately and safely control the work to be undertaken, the person may hold a number of Permits, i.e. they shall be the Permit Holder. A separate Permit shall be issued for each:

- a) Work location, or
- b) Group of work locations.

In assessing if it is practicable for a single person to effectively supervise the work, the Permit Holder shall consider:

- the extent of the Electrically Safe Work Area,
- the proximity of the electrical hazards,
- the number of persons working under the Permit,
- the physical separation of work locations, and
- the mobility of the work process.

4.4. Personnel Registers

If the work is to extend over several shifts, or there is insufficient space on the Permit for all the work party to sign on, then the Permit Holder shall use one or more Personnel Registers.

Each Personnel Register forms part of the Permit, and persons signing onto a personnel register are subject to the same conditions as if they had signed onto the Permit form itself.

Only one Personnel Register can be in use with any Permit at any one time.

At the commencement of each shift, it is not necessary for the Permit Holder to sign onto the Personnel Register, as space is provided on the Permit form itself for the Permit Holder to sign on.

At the completion of each shift, the Permit Holder shall sign off the Personnel Register as well as signing off at item (10) of the Permit.

At the completion of the last shift, the Permit Holder shall sign off the Personnel Register as well as signing off at items (10) and (11) of the Permit.

For extended shift working, the procedure for the management of Personnel Registers, which has been authorised by the Electrical Engineer/Manager for the project, shall be complied with.

Personnel Register forms PR D 78502 FM 02 – Substation / Low Voltage Personnel Register are to be downloaded and printed from the intranet as required.

4.5. Multiple Shifts

For work extending over several shifts, several prospective Permit Holders may be instructed and the Permit issued to one Approved Permit Holder at the beginning of the first shift. The Permit may then be transferred to other Approved Permit Holders for the subsequent shifts. This process can only be deployed if all the conditions below are confirmed prior to the commencement of each shift:

- The electrical isolation and the Electrically Safe Work Area remain unchanged.
- The scope of work, including the extent and type of work, remains unchanged.
- Only one Permit Holder is in charge of the Permit at any one time.
- A separate Personnel Register (PR D 78502 FM 02 Substation / Low Voltage Personnel Register) is used for each shift.
- The members comprising the work party have been instructed as required.
- No additional electrical hazards have been introduced to the work area.
- A procedure for the management of the Permit in between shifts is nominated by the Electrical Engineer/Manager for the project.

If any one condition cannot be met, the Permit shall be cancelled and then a new Low Voltage Access Permit shall be issued for each shift.

For **each** shift, members of the work party shall sign on to the Personnel Register prior to commencing work and shall sign off the Personnel Register at the completion of their shift.

At the beginning of each shift, the shift Permit Holder shall check and ensure that the previous shift Permit Holder has signed off the related Personnel Register.

The Permit Holder for the final shift, shall, in addition to signing off the Personnel Register, also sign off on item (11) of the Permit, declaring that the work has been totally completed and that the Permit is no longer required. This will enable the Permit to be cancelled and supply restored after all necessary checks and/or tests have been undertaken.

4.6. Relief of Permit Holder

Relief of a Permit Holder caters for unforeseen circumstances only, rather than a normal change of shift.

4.6.1. Relief of Permit Holder whilst Personnel Register in use

If the Permit Holder is to be relieved prior to the completion of a shift and a Personnel Register is in use, then the Personnel Register shall be signed off by all members of the work party and a new Personnel Register is to be used for the relieving Permit Holder. All members of a work party shall be advised of the change of Permit Holder.

4.6.2. Relief of Permit Holder whilst Personnel Register is not in use

If the Permit Holder is to be relieved prior to completion of a shift and a Personnel Register is not in use, then the Permit shall be cancelled and a new Permit issued.

5. Details Specified on the Permit

The Low Voltage Access Permit specifies the:

- a) Location of the work.
- b) Permit No.
- c) Planned dates and times for the work – item (1).
- d) Extent and type of work (including plant) for which the Permit is required – item (2).
- e) Person responsible for the work to be carried out, including contact phone number – item (3).
- f) Details of other electrical permits / Operating Agreements required and received – item (4).
- g) Switching operations to be carried out to achieve the isolation, detailing the switch number, location and action – item (5).
- h) Low voltage equipment that has been isolated and proved dead for the Permit – item (6).
- i) Details and identification of the Electrically Safe Work Area and relevant special instructions and warnings – item (7). These warnings shall include warnings about any live equipment on or near such as live overhead wiring on adjacent tracks or live joint use circuits.
- j) Approved prospective Permit Holders who have been instructed by an Authorised Person (refer section 6) in accordance with section 8.2 and who may hold the Permit, together with the name of the Authorised Person who instructed each approved Permit Holder – item (8).
- k) Permit issuer (refer section 6) – item (9).
- l) Permit Holder – item (10). This serves to record the name and sign-on details of the Permit Holder for each shift. If a Personnel Register is not in use, item (10) also records the names of the members of the work party.
- m) Permit Holder sign off – item (11) is completed at the end of the final shift by the Permit Holder of the final shift.
- n) Permit cancellation – item (12).
- o) Supply restoration confirmation – item (13).

6. Writing, Checking, Instructing, Issuing and Retrieving Permits

The Low Voltage Access Permit may be written by either an Authorised or unauthorised person (eg. an apprentice).

The checking, instructing, issuing and retrieving of a Low Voltage Access Permit shall be carried out by either an Authorised Traction Operator, Authorised Officer (Mains) or Authorised Person (Low Voltage). Refer to PR D 78701 Personnel Certification - Electrical Authorisations document for details.

7. Permit Holders

7.1. Eligible Persons

Permit Holders shall be persons who are instructed by an Authorised Person (refer section 6) and in accordance with section 8.2 of this instruction

Only one Permit Holder may be in charge of the Permit at one time.

Note: For Low Voltage Access Permits, it is not mandatory for eligible Permit Holders to be an Accredited Electrical Permit Holder– refer to PR D 78701 Personnel Certifications - Electrical Authorisations document for more details.

7.2. Instruction of Permit Holders

Permit Holders shall be instructed in accordance with section 8.2, at the worksite either:

- immediately prior to a Permit being issued; or
- at a meeting prior to the date of issue of the Permit.

If required, additional Permit Holders may be instructed in accordance with section 8.2 after work has commenced.

8. Responsibility of the Person Instructing the Permit Holder

8.1. Preparation

The Authorised Person (refer section 6) instructing a prospective Permit Holder shall:

- a) be aware of the details of the work for which the Permit is being issued; and
- b) be satisfied that the isolation and relevant special instructions and warnings, as shown, for which the Permit will be issued allows that work to be carried out safely; and
- c) check with the prospective Permit Holder that the work planned can be carried out safely within the Electrically Safe Work Area as shown on the Permit and in accordance with the special instructions as shown on the Permit.

It is not necessary that the Authorised Person who instructed the prospective Permit Holder be the same Authorised Person who will issue the Permit.

8.2. Instruction of Permit Holder

The Authorised Person (refer section 6) instructing the prospective Permit Holder shall ensure that

- a) the prospective Permit Holder understands:
 - i) the location, date and time restrictions of the Permit;
 - ii) which electrical equipment is covered by the Permit and is safe to work on or near;
 - iii) which electrical equipment shall be treated as live;
 - iv) any special instructions and warnings on the Permit;
 - v) that the Permit only applies to electrical equipment specified on the Permit and that all other electrical equipment shall be treated as live unless a separate Permit is received;
 - vi) that no work is to be carried out on or near the isolated electrical equipment other than the work specified on the Permit;
 - vii) that the Permit shall be retained by the Permit Holder at all times whilst the work for which the Permit is required is being carried out, or until such time as it is transferred in accordance with the instructions for the Relief of the Permit Holder (section 4.6), or signed off and returned;
 - viii) that the Permit Holder shall control the work process so that persons carrying out the work for which the Permit is required do not work beyond the limits of the Electrically Safe Work Area;
 - ix) the responsibilities set out on both sides of the Permit; and
 - x) the obligation of the Permit Holder for the electrical safety of staff working under their control.
- b) the prospective Permit Holder is instructed to ensure that all persons carrying out the work for which the Permit is required are warned:
 - i) not to allow any part of their body, clothes, tools, material or machinery they may be using or carrying to come within the Safe Approach Distances of any exposed equipment other than the isolated equipment in the Electrically Safe Work Area; and
 - ii) not to pass over or under work area or access markers, safety fences or special barriers.

8.3. Feedback from the Permit Holder

The Authorised Person (refer section 6) instructing the prospective Permit Holder shall obtain an acknowledgment from the prospective Permit Holder that the work can be carried out safely within the Electrically Safe Work Area shown on the Permit.

The instructing person shall provide the prospective Permit Holder with any advice or assistance required in order for the prospective Permit Holder to make an informed assessment prior to giving the required acknowledgment.

The instructing person shall read items (1), (2) and (7) of the Permit to the prospective Permit Holder, and, as each item is completed, require the prospective Permit Holder to give verbal confirmation that:

- a) They have understood that item of the Permit, and
- b) The information in that item of the Permit matches the work that they are undertaking.

8.4. Permit Instructor to ensure Prospective Permit Holders sign the Permit

The Authorised Person (refer section 6) instructing the prospective Permit Holder shall ensure that the Permit Holder prints their name and signs the Permit in the space(s) provided at item (8) of the Permit in acknowledgement of section 8.2 of this instruction.

8.5. Permit Instructor to sign the Permit

The Authorised Person (refer section 6) instructing the Permit Holder shall then print their name and sign in the adjacent space(s) provided at item (8) of the Permit in acknowledgment of having instructed that prospective Permit Holder.

8.6. Instruction of Permit Holder at a Meeting Prior to the Work

If the prospective Permit Holder is being instructed at a meeting prior to the work, the Authorised Person instructing the prospective Permit Holder shall ensure that:

- a) items 1, 2, 3, 4, 5, 6, and 7 are completed prior to the commencement of instruction of prospective Permit Holders at the meeting,
- b) item 8 of the Permit is completed at the meeting,
- c) items 9, 10, 11, 12, and 13 of the Permit are not completed at the meeting,
- d) all copies of the Permit remain in the book, and
- e) the Permit book is retained and arrangements are made for it to be forwarded to the Authorised Person issuing the Permit.
- f) the Permit is not numbered until the permit is issued.

9. Responsibility of the Person Issuing the Permit

9.1. Preliminary Checks

The Authorised Person (refer section 6) issuing the Low Voltage Access Permit shall:

- a) be aware of the details of the work for which the Permit is being issued; and
- b) be satisfied that the isolation and relevant special instructions and warnings, as shown, for which the Permit will be issued allows that work to be carried out safely; and
- c) ensure that:
 - i) All the relevant information including any relevant special instructions or warnings is entered on the Permit. The Permit shall be made out in duplicate; check that the information is clearly legible on the self-duplicating copy;
 - ii) The Permit is numbered correctly. The Permit Number is a unique number. The format comprises the issuer's initials (upper case), date of issue and the respective consecutive number of the permit issued for the day e.g. LM250107/1, LM250107/2....etc;
 - iii) The switching operations listed on the Permit are correct to isolate all the low voltage equipment required to be isolated for the work;
 - iv) The switching operations necessary to isolate the required low voltage equipment are carried out with the prior knowledge and agreement of the Electrical System Operator, where applicable;

- v) Access Permits or Operating Agreements from other Network Operators have been received, where required;
- vi) The low voltage equipment has been proved dead;
- vii) Work area markers have been set where it is necessary to restrict persons to an Electrically Safe Work Area;
- viii) Special barriers have been erected where necessary to provide a safeguard for persons working; and
- ix) The prospective Permit Holder is listed as an approved Permit Holder at item (8) of the Permit concerned.

9.2. Issuing of Permit

The Authorised Person (refer section 6) issuing the Permit shall:

- a) then ensure that the Permit Holder prints their name and signs the Permit in the space provided at item (10) in acknowledgment and acceptance of the associated responsibilities; and
- b) make the Permit “in force” by printing their name and signing at the space provided, entering the time and date “in force” (item (9) of the permit) and issue the Permit; and
- c) then issue the Permit.

The Authorised Person issuing the Permit is not required to remain on or near of the work unless holding the Permit.

The responsibilities of the Permit Holder and the persons in the work party are set out in instruction D2013/80544 Working in Accordance with an Electrical Permit. That instruction includes the procedures that the Permit Holder shall follow if Personnel Registers are used.

10. Return of the Permit

The Permit Holder is required to return the Permit to an Authorised Person retrieving the Permit. The Permit Holder shall check and ensure that all members of the work party have signed off before leaving the work site.

11. Responsibility of the Person Retrieving the Permit

11.1. Preliminary Checks

Prior to cancelling the Permit the Authorised Person (refer section 6) retrieving the Low Voltage Access Permit shall:

- a) Check that the Permit Holder has certified (item 11 of the Permit) that the Permit may be cancelled,
- b) Check that all persons signed on to the Permit and any associated Personnel Registers have signed off,

If it appears that any work party member may not have signed off, confirm that the Permit Holder:

- Has made reasonable attempts to ensure that any person failing to sign off has left the work site and it is impracticable to get them back for signing off;
- Accepts responsibility for that person, and an appropriate notation shall be made on the Permit / Personnel Register , and
- is required to undertake a joint site inspection with the Person retrieving the Permit to ensure that all persons, tools and machinery are outside the minimum Safe Approach Distance for safe energisation of supply.

If the Permit Holder has not signed off and/or already left the work site and is not reasonably practicable for them to return to sign off the Permit, then the Person retrieving the Permit has to undertake a site inspection to ensure that all persons, tools and machinery are outside the minimum Safe Approach Distance for safe energisation of supply and report the matter to the Sydney Trains Safety Incident and Injury Hotline 1800 772 779 and the Electrical System Operator.

- c) Check that the part of the electrical equipment for which the Permit was issued has been inspected, tested if required, and is safe to be energised.

11.2. Cancellation of the Permit

Once the preliminary checks have been satisfactorily completed, the Authorised Person (refer section 6) cancelling the Low Voltage Access Permit shall:

- a) Cancel the original copy of the Permit by signing in the space provided and entering the time and date – item (12).
- b) The Permit need not be placed back in the Permit book to be cancelled.
- c) Sign off all other electrical permits and Operating Agreements if received – refer item (4).
- d) Remove work area markers, special barriers and Danger Tags.
- e) Arrange to energise the low voltage equipment in accordance with procedure PR D 78401 Isolation and Energisation of Low Voltage Equipment
- f) Certify that supply has been restored by signing in the space provided and entering the time and date – item (13).
- g) Forward the cancelled Permit to the nominated Electrical Engineer or electrical representative in the area concerned.

12. Procedure in case of a Permit being Lost

If the Low Voltage Access Permit is lost, the Permit Holder shall immediately report the loss to the Authorised Person who issued or is retrieving the Permit or to the Electrical System Operator.

If work is still in progress, an Authorised Person shall issue a duplicate Permit with the same number. This duplicate Permit shall be endorsed "Replacement for Lost Permit". The Authorised Person issuing the replacement Permit shall instruct the Permit Holder to ensure that all persons still engaged in the work sign on to the duplicate Permit. The Authorised Person shall also ensure that the loss and replacement action is recorded at item 10 of the book copy of the lost Permit.

If work has been completed and a replacement Permit has not been issued, the Authorised Person who would have retrieved the Permit shall obtain written notification from the Permit Holder that:

- a) all persons, tools, material or machinery are clear of the low voltage equipment for which the Permit was issued; and
- b) all persons who signed on the original Permit (and any associated Personnel Register) have been instructed to treat the equipment as live.
- c) If the book copy of the Permit is available, this written notification may be provided by making a notation on the book copy that "the original Permit has been lost" and ensuring all persons signed on to the original Permit, sign off on the book copy.



13. References

PR D 78401	Isolation and Energisation of Low Voltage Equipment
PR D 78402	Work on the Low Voltage Distribution System
PR D 78500	Electrical Permits
D2013/80873	Work on Low Voltage Installations
PR D 78503 FM 01	Low Voltage Access Permit
PR D 78502 FM 02	Substation / Low Voltage Personnel Register
PR D 78700	Working around Electrical Equipment
PR D 78701	Personnel Certifications - Electrical Authorisations
D2013/80544	Working in Accordance with an Electrical Permit

14. Appendices

No table of figures entries found.

Appendix A Sample "Low Voltage Access Permit" Form

Sydney Trains Engineering Form – EDU
PR D 78503 FM 01

LOW VOLTAGE ACCESS PERMIT

LOCATION HORNSBY YARD PERMIT NO. ML 250618/1

(1) THIS PERMIT IS IN FORCE FROM Planned Time: 08:00 HRS Date: 25 / 06 / 2018 TO Planned Time: 15:00 HRS Date: 25 / 06 / 2018

(2) EXTENT AND TYPE OF WORK : (including Plant) Plant Storage Shed
Renew roof and guttering of shed

(3) FOR WORK TO BE CARRIED OUT BY: Skilled Roofing P/L (DEPOT/COMPANY) CONTACT PHONE: 0408 987 654

(4) OTHER ELECTRICAL PERMITS/OPERATING AGREEMENTS REQUIRED, HAVE BEEN RECEIVED: N/A

(5) THE FOLLOWING SWITCHING OPERATIONS ARE TO BE CARRIED OUT TO ACHIEVE ISOLATION : (Detail Switch No., Location and Action)
CB2 in DB3 on Pole 4 Open & DT

(6) THE FOLLOWING LOW VOLTAGE EQUIPMENT HAS BEEN ISOLATED AND PROVED DEAD FOR THIS PERMIT :
The LV aerials from Pole 4 to 4B to the Yard Lighting Tower

(7) DETAILS AND IDENTIFICATION OF THE ELECTRICALLY SAFE WORK AREA AND RELEVANT SPECIAL INSTRUCTIONS AND WARNINGS : (Limit this to worksite or other boundary)
Up to 2 metres from Plant Storage walls Shed walls
Warning 1. LIVE LV aerials exist from Pole 3 to 4 and beyond
Warning 2. Lighting & power to Shed is LIVE

NB: All other exposed electrical equipment shall be considered as alive and appropriate clearances maintained.

(8) **PERMIT TO BE ISSUED TO: PERMIT HOLDERS SIGNING THIS SECTION ACKNOWLEDGE THAT THEY HAVE BEEN SHOWN AND UNDERSTAND THE DETAILS AND IDENTIFICATION OF THE ELECTRICALLY SAFE WORK AREA FOR WHICH THE PERMIT WILL BE ISSUED.**

PERMIT HOLDERS:		INSTRUCTED BY: (Authorised Person)	
PRINT NAME	SIGNATURE	PRINT NAME	SIGNATURE
<u>I.ROBOT</u>	<u>I.ROBOT</u>	<u>M.LOGAN</u>	<u>M.LOGAN</u>

(9) ISSUED BY (Authorised Person) Print : M.LOGAN Sign : M.LOGAN Time : 08:00 HRS Date : 25 / 06 / 2018

(10) **PERMIT HOLDER: I WILL COMPLY WITH THE PROVISIONS OF PART A ON THE REVERSE SIDE OF THIS FORM AND ACCEPT THE ASSOCIATED RESPONSIBILITIES. I WILL ENSURE THAT THE WORK PARTY COMPLIES WITH THE PROVISIONS OF PART B ON THE REVERSE SIDE OF THIS FORM.**

USE OF PERSONNEL REGISTER (Form PR D 78502 FM 02 Substation / Low Voltage Personnel Register):

(i) If a Personnel Register is used, the Permit Holder is to complete the relevant line below (the line number becomes the Personnel Register No.) and tick the box next to the line. The work party is to sign on to the Personnel Register. The associated Personnel Register is to be linked to this Permit and forms part of this Permit.

(ii) If a Personnel Register is not used, the Permit Holder is to sign on line 1 below, and the work party, lines 2-7 below.

	PRINT NAME	SIGN ON	TIME	DATE	SIGN OFF	TIME	DATE
1	<u>I.ROBOT</u>	<u>I.ROBOT</u>	<u>08:10</u>	<u>25 / 06 / 18</u>	<u>I.ROBOT</u>	<u>14:00</u>	<u>25 / 06 / 18</u>
2	<u>F.MONGER</u>	<u>F.MONGER</u>	<u>08:10</u>	<u>25 / 06 / 18</u>	<u>F.MONGER</u>	<u>14:00</u>	<u>25 / 06 / 18</u>
3	<u>R.RAINDEER</u>	<u>R.RAINDEER</u>	<u>08:10</u>	<u>25 / 06 / 18</u>	<u>R.RAINDEER</u>	<u>14:00</u>	<u>25 / 06 / 18</u>
4			:	/ /		:	/ /
5			:	/ /		:	/ /
6			:	/ /		:	/ /
7			:	/ /		:	/ /

(11) **PERMIT HOLDER - BY SIGNING OFF THIS PERMIT:**

(i) I CERTIFY THAT PERSONS SIGNED ON THIS PERMIT (OR THE PERSONNEL REGISTER), TOOLS, MATERIALS, AND MACHINERY ARE CLEAR OF THE ELECTRICAL EQUIPMENT AND ALL PERSONS HAVE BEEN INSTRUCTED TO TREAT THE EQUIPMENT AS LIVE, AND

(ii) I ACCEPT RESPONSIBILITY FOR PERSONS WHO HAVE FAILED TO SIGN OFF AND HAVE UNDERTAKEN A JOINT SITE INSPECTION WITH THE PERSON RETRIEVING THE PERMIT TO ENSURE THAT ALL PERSONS, TOOLS, MATERIALS AND MACHINERY ARE OUTSIDE THE MINIMUM SAFE APPROACH DISTANCE FOR SAFE ENERGISATION OF SUPPLY.

Print : I.ROBOT Sign : I.ROBOT Time : 14:00 HRS Date : 25 / 06 / 2018

(12) PERMIT CANCELLED Sign : M.LOGAN AUTHORISED PERSON Time : 14:30 HRS Date : 25 / 06 / 2018

(13) SUPPLY RESTORED Sign : M.LOGAN AUTHORISED PERSON Time : 14:45 HRS Date : 25 / 06 / 2018

(14) THE CANCELLED PERMIT (ORIGINAL) IS TO BE FORWARDED TO THE NOMINATED ELECTRICAL ENGINEER OR ELECTRICAL REPRESENTATIVE IN THE AREA CONCERNED.

© Sydney Trains
Date in Force: 29 March 2018

Page 1 of 2
Version 1.1

Appendix B "Low Voltage Access Permit" Form - Reverse Side

Sydney Trains Engineering Form – EDU
PR D 78503 FM 01

GENERAL:

1. This Permit is issued in accordance with PR D 78500 Electrical Permits and PR D 78503 Low Voltage Access Permits by an Authorised Person who has taken the necessary steps to protect the persons engaged on the work for which this Permit is issued.
2. Supply to the low voltage equipment will not be restored until the Permit has been returned or the written notification referred to in Part A has been received by the Authorised Person who issued or is retrieving the Permit.
3. Work shall not commence until the Permit has been received and all staff engaged on the work have signed "on" the Permit or the Personnel Register provided.

PART A: RESPONSIBILITY OF THE PERMIT HOLDER: (Reference SMS-06-SW-0267 Working in Accordance with an Electrical Permit)

1. If the Permit Holder has to leave the electrically safe work area and is not relieved, all persons signed on the Permit or the Personnel Register shall cease the work for which the Permit was issued until the Permit Holder returns, after which that work may recommence.
2. The Permit Holder shall ensure that:
 - (i) The Permit is retained until returned to an Authorised Person.
 - (ii) The work described on the Permit fully describes the work to be carried out and that no work may be carried out on or near the isolated equipment other than that specified on the Permit.
 - (iii) Persons carrying out the work understand which low voltage equipment is covered by the Permit and is safe to work on or near and that all other exposed equipment shall be treated as live.
 - (iv) Persons carrying out the work are warned:
 - not to allow any part of their body, clothes, tools, materials or machinery they may be using or carrying, to come within the Safe Approach Distances of any exposed equipment, other than the isolated equipment in the Electrically Safe Work Area, and
 - not to pass over or under work area markers, safety fences or other barriers.
 - (v) The work process is adequately controlled so that persons do not work beyond the limits of the Electrically Safe Work Area.
 - (vi) The Permit Holder and all persons carrying out the work for which the Permit is required:
 - are signed on the Permit or the Personnel Register prior to commencing work,
 - are signed off the Permit or the Personnel Register when the work is finished or prior to leaving the work location at the end of their shift, and
 - understand permission to carry out work for which the Permit was issued has been withdrawn once they have signed off the Permit or the Personnel Register .
 - (vii) The Permit is returned no later than the time shown on the Permit.

If it is probable that the work will extend beyond the expiry time shown on the Permit, the Permit Holder shall inform the Authorised Person who issued or is retrieving the Permit as soon as it is known that the Permit may be returned late.
 - (viii) Prior to returning the Permit all persons, tools, materials and machinery are clear of all low voltage equipment for which the Permit was issued, all persons have signed off the Permit or the Personnel Register and have been instructed to treat the equipment as live.

3. Relief of the Permit Holder:

If the Permit Holder is to be relieved, the relieving Permit Holder shall have been instructed by an Authorised Person as to the electrically safe work area and conditions of the Permit. The relieving Permit Holder shall sign the Permit in the space provided - item (10), and comply with the requirements above.

If the person who is to relieve the Permit Holder has not been instructed accordingly, all persons signed on the Permit or the Personnel Register shall cease the work for which the Permit was issued until the new Permit Holder is appropriately instructed, receives a Permit and takes charge of the work party. This can be arranged with the Authorised Person who issued the Permit or with the Electrical System Operator.

4. Procedure in Case of Permit Being Lost:

If the Permit is lost, the Permit Holder shall immediately report the loss to the Authorised Person who issued or is retrieving the Permit or to the Electrical System Operator.

At the completion of the work, the Permit Holder shall give written notification to the Authorised Person who is retrieving the Permit that all persons, tools, materials and machinery are clear of the low voltage equipment for which the Permit was issued and all persons who signed on the Permit or the Personnel Register have been instructed to treat the equipment as live.

PART B: PERSONS SIGNING "ON" AND "OFF" THE PERMIT OR THE PERSONNEL REGISTER ACKNOWLEDGE:

1. They have been instructed and understand the extent of the Electrically Safe Work Area and that all other electrical equipment shall be treated as live.
2. They have been instructed that, in order not to incur any danger, they shall confine themselves, their clothing, tools, materials and machinery within the Electrically Safe Work Area.
3. When they leave the work location they shall sign "off" the Permit or the Personnel Register, understand that permission to carry out work for which the Permit was issued has been withdrawn, and treat all electrical equipment as live.