

Engineering Procedure  
Electrical Distribution Unit

PR D 78504

## Operating Agreements

Version 1.1

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# Procedure

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## Document control

Version	Date	Author/ Prin. Eng.	Summary of change
1.0	29 July 2015	Chris Leung	First issue as a Sydney Trains document, rebranded from previous RailCorp SMS-06-EN-0585 V1.3
1.1	16 July 2018	Chris Leung	3 Yearly Review

## Summary of changes from previous version

Summary of change	Section
Minor updates	

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## 1 Purpose and Scope

To describe the procedures required for the issuing and retrieving of a Sydney Trains' Operating Agreement (PR D 78504 FM 01 Operating Agreement).

An Operating Agreement is the safety document used as a token where another Electrical Network Operator requires Sydney Trains' Low Voltage (LV), High Voltage (HV) aerial lines, cables or 1500V DC Overhead Wiring (OHW) to be isolated to allow its work on their infrastructure to proceed. For further information on the applicability of an Operating Agreement see procedure PR D 78500 Electrical Permits.

For procedures relating to receipt of Operating Agreements from other Electrical Network Operators see procedures PR D 78202 Working High Voltage Instruction and PR D 78302 1500 Volt Authority.

## 2 Responsibility

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

- a. Writing and checking Operating Agreements,
- b. Instructing the person receiving the Operating Agreement, and
- c. Issuing and retrieving Operating Agreements.

These persons shall have the appropriate authorisation (refer section 6).

Nominated Electrical Engineers in the area concerned are responsible for reviewing Operating Agreements returned to them upon completion of the work covered by the Operating Agreements.

### 3 System Overview

An Operating Agreement is issued by an Authorised Person (refer section 6) to a representative of another Electrical Network Operator as a confirmation that:

- the specified RailCorp HV aerial lines, or cables have been isolated and earthed,
- the specified sections of RailCorp 1500V DC OHW system have been isolated and rail connected,
- the specified RailCorp LV aerial lines or cables have been isolated and proved dead, and
- the isolated and earthed or rail connected conditions will remain until the Operating Agreement is returned and cancelled.

The Operating Agreement form is used as a token passed between Sydney Trains and another Electrical Network Operator. The other Electrical Network Operator should not start work until the Operating Agreement is received, and Sydney Trains shall not remove its safety measures until the Operating Agreement is received back from the other Electrical Network Operator.

In issuing an Operating Agreement for equipment nominated by the other Electrical Network Operator, Sydney Trains gives no assurance that it will be safe to carry out the proposed work with that equipment isolated. The Operating Agreement only certifies that the equipment nominated is isolated and earthed or rail connected, and that the nominated equipment will remain isolated and earthed or rail connected until the Operating Agreement is returned.

### 4 General Requirements

#### 4.1 WHVI or Authority

An Operating Agreement issued by Sydney Trains shall be in accordance with the relevant Working High Voltage Instruction (WHVI) (PR D 78202 FM 01) or Authority for Removal of Supply from 1500 Volt Sections (Authority) (PR D 78302 FM 01).

#### 4.2 Inclusion of Low Voltage Aerial Lines

Where a LV aerial line has to be isolated and proved dead for the work, it shall be included on the Operating Agreement. If specifically requested by the other Electrical Network Operator, the LV aerial line shall be earthed if possible, i.e. the aerial line is not insulated.

#### 4.3 Deletions or Alterations

No deletions or alterations may be made to the Operating Agreement once it has been issued. Should amendment be necessary after the Operating Agreement has been issued, the Operating Agreement shall be cancelled and a new Operating Agreement issued.

## 4.4 Details Specific on the Operating Agreement

The Operating Agreement specifies the:

1. Operating Agreement number.  
The Operating Agreement number is a unique number. The number format is detailed in:
  - PR D 78202 section 5.2 (c) if issued under a WHVI, or
  - PR D 78302 section 6.3 (b) if issued under an Authority.This number includes the associated WHVI or Authority number,
2. Planned time and date for the work.
3. Location, description, voltage, identification number and limits of electrical equipment covered by the Operating Agreement:
  - the HV aerial lines, or cables that have been isolated and earthed, and/ or
  - 1500V DC OHW sections or cables that have been isolated and rail connected, and/or
  - LV aerial lines or cables that have been isolated, proved dead, and/or earthed (if specifically requested by the other Electrical Network Operator).

## 5 Writing, Checking, Instructing, Issuing and Retrieving Operating Agreements

The Sydney Trains Operating Agreement may be written by either an Authorised or unauthorised person (eg. an apprentice).

The checking, instructing, issuing and retrieving of a Sydney Trains Operating Agreement shall be carried out by either an Authorised Traction Operator or Authorised Officer (Mains). Refer to PR D 78701 Personnel Certifications – Electrical Authorisations document for details.

## 6 Responsibility of the Person Issuing the Operating Agreement

### 6.1 Preparation

The Authorised Person (refer section 6) issuing a Sydney Trains Operating Agreement to the representative of another Electrical Network Operator shall:

1. Be authorised to issue an Operating Agreement for the equipment concerned (refer section 6).
2. Have an approved copy of the relevant WHVI or Authority where applicable.
3. Ensure that:
  - i. The Operating Agreement is correctly numbered.  
This number is issued by the Authorised Person (Mains) in charge of the relevant WHVI or Authority and listed on the relevant WHVI or Authority, refer section 5.
  - ii. All relevant electrical equipment and information including any relevant special instructions on the WHVI or Authority is entered on the Operating Agreement – item 3.
  - iii. The Operating Agreement is made out in duplicate. This may be done by either:

- using an Operating Agreement book (**Stock Code 2087484**) procured through a Sydney Trains authorised printing company, or
  - making a photo copy, if facilities for doing so are readily available.
- iv. The Authorised Person (Mains) in charge of the WHVI or Authority:
- has confirmed that the specified LV and HV aerial lines or cables as detailed at item 3 of the Operating Agreement, have been isolated and **safety** earths applied as required, and
  - has confirmed that the specified sections / subsections of the 1500V DC OHW system as detailed at item 3 of the Operating Agreement, have been isolated and has advised the locations of the associated rail connections.
- v. The **working** earths for the specified HV aerial lines or cables are in place at each side of the work site and shall visually check at least one set.
- vi. All 1500V DC equipment covered by the Operating Agreement is rail connected. This shall be done:
- by visually tracing to at least one set of rail connections for **each** section / subsection, or
  - by personally using a LR tester to check the continuity of rail-connecting cables at 1500V field switches that cannot be visually inspected from end to end, or

**Note:**

A LR Tester is not to be used for any other purpose such as proving dead

- by personally using a Hivotech OHW Tester to test dead, or
- in circumstances approved in writing by the Authorised Officer (Mains), by reference to a signed PR D 78501 FM 02 Portable Rail Connection / Earthing Schedule, stating the locations of the rail connections applied for a closedown of extended length and/or duration and unchanging power out configuration with the exception of the electrical sections / subsections adjacent to the live sections at the extremities of the closedown where LR testing to check the continuity of rail-connecting cables at 1500V OHW field switches that cannot be visually inspected from end to end or visual tracing to a set of rail connections is mandatory.

## 6.2 Instruction of the Person Receiving the Operating Agreement

The person receiving the Sydney Trains Operating Agreement shall be instructed in the details of the electrical equipment covered by the Operating Agreement by the relevant Sydney Trains Authorised Person (refer section 6) at the worksite immediately prior to the Operating Agreement being issued.

The person issuing a Sydney Trains Operating Agreement shall ensure that the representative of the other Electrical Network Operator:

- i. Understands:
  - which electrical equipment is covered by the Operating Agreement, and
  - the requirements of the Operating Agreement.
- ii. Is aware of the time and date restrictions of the Operating Agreement.
- iii. Print their name and sign the Operating Agreement in the space provided at item 5 of the form, in acknowledgment of items (i) and (ii) above.
- iv. Understands that the other Electrical Network Operator shall retain the original of the Operating Agreement until it is returned.

### 6.3 Feedback from the Operating Agreement Holder

The Authorised Person instructing the prospective Sydney Trains Operating Agreement Holder shall obtain an acknowledgment from the prospective Sydney Trains Operating Agreement Holder that the equipment identified as isolated, proved dead, earthed or rail-connected, will allow the other Electrical Network Operator to proceed with **its** work on **their** infrastructure.

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

The instructing person shall read items (1), (2) and (3) of the Sydney Trains Operating Agreement to the prospective Sydney Trains Operating Agreement Holder, and, as each item is completed, require the prospective Sydney Trains Operating Agreement Holder to give verbal confirmation that:

- i. They have understood that item of the Sydney Trains Operating Agreement, and
- ii. The information in that item of the Sydney Trains Operating Agreement will enable their work to be undertaken safely.

### 6.4 Issue of the Operating Agreement

The person issuing the Sydney Trains Operating Agreement shall:

- i. Acknowledge having shown the electrical equipment covered by the Operating Agreement to the receiver of the Operating Agreement and make it “in force” by printing their name, position, phone number, time and date “in force” and then signing, in the space provided at item 4 of the form, and
- ii. Ensure that the other Electrical Network Operator’s authorised representative prints their name and other details as requested on the form and then signs
- iii. the Operating Agreement at the space provided at Item 5 in acknowledgement of acceptance of the associated responsibilities, and
- iv. Then issue the Operating Agreement

The person having issued the Operating Agreement shall then:

- v. Confirm the details of the Operating Agreement with the Authorised Person (Mains) in charge of the WHVI or Authority, and
- vi. Advise Sydney Trains' Electrical System Operator (ESO) of the details of the Operating Agreement issued, i.e. Operating Agreement Number, associated WHVI and/or Authority number, issued to the name of the person and I Electrical Network Operator, date and time of issue.

The person issuing the Operating Agreement is not required to remain in the vicinity of the work.



## 7 Responsibility of the Person Retrieving the Operating Agreement

### 7.1 Preliminary Checks

The Authorised Person (refer section 6) retrieving the Sydney Trains Operating Agreement shall:

- i. Check that the representative of the other Electrical Network Operator has completed and signed the Operating Agreement as returned at item 6.
- ii. Check that the electrical equipment for which the Operating Agreement was issued has been inspected and is safe to be energised.

### 7.2 Cancellation of the Operating Agreement

Once the preliminary checks have been satisfactorily completed, the Authorised Person (refer section 6) retrieving the Sydney Trains Operating Agreement shall:

- i. Cancel the original copy of the Operating Agreement by completing and signing in the space provided at item 7.
- ii. Ensure that the Authorised Person (Mains) in charge of the WHVI or Authority is advised that the Operating Agreement has been cancelled.
- iii. Advise Electrical System Operator of the cancelled Operating Agreement.
- iv. Forward the cancelled Operating Agreement to the nominated Electrical Engineer.

### 7.3 Removal of Working Earths and / or Portable Rail Connections

Working earths and / or portable rail connections shall **not** be removed:

- a. Without first checking with the Authorised Person (Mains) in charge of the WHVI or Authority, and
- b. If the said working earths and / or portable rail connections are protecting work being carried out on other Permits or Operating Agreements.



**Note:**

Where overlapping Authorities exist, as indicated on the completed “PR D 78501 FM 02 Portable Rail Connection / Earthing Schedule”, the portable rail connections applied in the overlapping areas shall not be removed without the approval of the Authority Holders for each of the overlapping Authorities concerned.

## 8 References

PR D 78202	Working High Voltage Instruction
PR D 78302	1500 Volt Authority
PR D 78500	Electrical Permits
PR D 78305	1500 Volt Operating Procedure
PR D 78504 FM 01	Operating Agreement
PR D 78501 FM 02	Portable Rail Connection / Earthing Schedule
PR D 78701	Personnel Certification – Electrical Authorisations

## Appendix A Example "Operating Agreement Form"

		Sydney Trains Engineering Form – EDU PR D 78504 FM 01
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### OPERATING AGREEMENT

**This Operating Agreement No. T234/2013/8 is for issue to another Electrical Network Operator for work by**  
(Insert Number)  
**that Network Operator near Sydney Trains' electrical equipment.**

1) **This Operating Agreement is issued in conjunction with the isolation of electrical equipment as detailed on**  
*Delete a), b) or c) if not required*  
 a) ~~Authority for Removal of Supply from 1500 Volt Section No. \_\_\_\_\_~~  
 b) Working High Voltage Instruction No. T234/2013/8, or  
 c) ~~for LV aerial line in accordance with Section 4.2 of PR-D 78504.~~

2) **Planned Time and Date:** FROM: Hrs 08 : 30 Date 1 / 5 / 20 13 TO: Hrs 15 : 30 Date 2 / 5 / 20 13

3) **Electrical Equipment covered by this Operating Agreement (including any relevant special instructions on the WHVI and/or Authority)**

Location (Suburb/Locality)	Equipment (Feeder/Section/Circuit)	From (Pole No. or Structure No.)	To (Pole No. or Structure No.)
<u>GOSFORD 833</u>	<u>66kV FEEDER</u>	<u>Pole 85</u>	<u>Pole 89</u>
<u>GOSFORD 671/2</u>	<u>11kV FEEDER</u>	<u>Pole 85</u>	<u>Pole 89</u>

The controlling switches or links providing the isolation have been DANGER Tagged and the isolated electrical equipment has been proved dead. The 1500 volt overhead wiring equipment has been rail connected, the high voltage equipment has been earthed, and the low voltage equipment has been earthed (if specifically requested by the other Electrical Network Operator) in accordance with the Sydney Trains Electrical Network Safety Rules. The isolated electrical equipment will remain in this condition until this Operating Agreement is cancelled.

4) **Issued by:**

<b>Sydney Trains</b>	<b>Authorised Person (Mains):</b>	<b>Print Name:</b> <u>S.SMITH</u>	<b>Signature:</b> <u>S.SMITH</u>
Electrical System Operator		<b>Position:</b> <u>Authorised Officer (Mains)</u>	<b>Phone:</b> <u>0432 567 890</u>
Contact Phone: (02) 9379 4911		<b>Time:</b> Hours: <u>08:30</u>	<b>Date:</b> <u>1/5/2013</u>

I acknowledge that I have shown the electrical equipment covered by this Operating Agreement to the Receiver of this Operating Agreement.

5) **Received by:**

<b>Electrical Network Operator:</b>	<b>Electrical Network Operator Name:</b>	<u>AUSGRID</u>	
Electrical System Operator	<b>Authorised Representative:</b>	<b>Print Name:</b> <u>J BLOGG</u>	<b>Signature:</b> <u>J BLOGG</u>
Contact Phone: <u>02 9123 7654</u>		<b>Position:</b> <u>Mains Technical Officer</u>	<b>Phone:</b> <u>02 9123 7654</u>
		<b>Time:</b> Hours: <u>08:30</u>	<b>Date:</b> <u>1/5/2013</u>

I acknowledge having been shown by the Issuer of this Operating Agreement, the electrical equipment covered by this Operating Agreement and accept the rail connecting or earthing procedures of Sydney Trains.

6) **Returned by:**

<b>Electrical Network Operator:</b>	<b>Electrical Network Operator Name:</b>	<u>AUSGRID</u>	
Electrical System Operator	<b>Authorised Representative:</b>	<b>Print Name:</b> <u>J BLOGG</u>	<b>Signature:</b> <u>J BLOGG</u>
Contact Phone: <u>02 9123 7654</u>		<b>Position:</b> <u>Mains Technical Officer</u>	<b>Phone:</b> <u>02 9123 7654</u>
		<b>Time:</b> Hours: <u>15:00</u>	<b>Date:</b> <u>2/5/2013</u>

By signing this Operating Agreement as returned, I will consider all Sydney Trains electrical equipment as live and all persons who were working under the Agreement have been instructed to consider all Sydney Trains electrical equipment as live.

7) **Cancelled by:**

<b>Sydney Trains Authorised Person (Mains):</b>	<b>Print Name:</b> <u>S SMITH</u>	<b>Signature:</b> <u>S SMITH</u>	
	<b>Position:</b> <u>Authorised Officer (Mains)</u>	<b>Phone:</b> <u>0432 567 890</u>	
	<b>Time:</b> Hours: <u>15:00</u>	<b>Date:</b> <u>2/5/2013</u>	

8) **Forward the cancelled Operating Agreement (original) to the appropriate Electrical Engineer's Office.**

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