

**Engineering System Integrity
Electrical Network Safety Rules**

**Engineering Specification
Electrical Distribution Unit**

Personnel Competency

**SP D 79048
Competence of Persons**

Version 1.0

Date in Force: 1 February 2022

Approved by: Associate Director
Electrical Distribution Unit
Engineering System Integrity

Authorised by: Engineering Technical
Publications Manager
System Integrity

Disclaimer

This document was prepared for use by persons in connection with works near or on/within 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	1 February 2022	ENSR Project Team	First issue as Sydney Trains document. Extracted from SMS-06-GD-0268 V3.2. Reviewed as part of the ENSR Project.

Table of Contents

1	Overview	4
2	Definitions.....	4
3	Ordinary Persons	4
4	Accredited Persons	5
5	Authorised Persons	6
6	Reference documents.....	6

1 Overview

Three levels of competence apply to persons required for working around Transport Asset Holding Entity of New South Wales (TAHE) electrical equipment:

- Ordinary Persons.
- Accredited Persons
- Authorised Persons

The level of competence determines the type of work the person may do and the minimum Safe Approach Distance (SAD) (refer to *SP D 79049 Safe Approach Distances (SADs)*) that applies to the work.

This document is in addition to other industry relevant competencies, qualifications or safe working requirements, including but not limited to the WorkCover general construction induction training requirements.

2 Definitions

Refer to the **Electrical Safety Definitions** page available on the **RailSafe** site.

3 Ordinary Persons

Ordinary persons are those persons who have not received training in, or demonstrated competency in, the specific hazards and risks associated with working around electrical equipment. Ordinary persons include those persons who have completed the Rail Industry Safety Induction (RISI) course and no other electrical awareness training or electrical courses.

Persons performing non-electrical work in the vicinity of live electrical equipment must have completed the RISI course.

Non-electrical work at station platform or track level, in the vicinity of live electrical equipment includes but is not limited to:

- Walking on track
- Walking on station platforms
- Walking between cars on a train
- Using hand held tools at or below shoulder height on a station platform or at track level.

For all such non electrical work in the vicinity of live electrical equipment at station platform or track level, the persons performing this work and the tools, equipment, materials or other objects they may be using or carrying during the work must remain outside the Ordinary persons minimum Safe Approach Distances (SADs). Refer to SP D 79049 Section 3.1 Normal SADs for Persons and Tools Held by Persons Table 1 Minimum SADs to exposed electrical equipment for persons and tools they hold.

4 Accredited Persons

Accredited Persons is a person who has successfully completed approved Electrical Training such as:

- Successfully completed an appropriate training course (e.g. Crane and Plant Electrical Safety Course UETTDREL14A) relating to the work that has been conducted by a registered training organisation.

or

- The Rail Industry Safety Induction (RISI) course, have received additional Electrical Awareness training, and demonstrated competence to perform such work near or on/within electrical equipment safely.

A minimum set of training objectives for the Electrical Awareness training would include:

- the electrical safety contents of the RISI course
- identification, awareness and risk control methodologies with respect to the particular electrical safety hazards associated with the proposed work function, location and site conditions
- identification and application of the prescribed SAD boundary
- identification of mandated personal protective equipment particular to the proposed work function, (refer to *PR D 78700 Working around Electrical Equipment* Section 9 Personal Protective Equipment)
- the methodology of preventing the person from intentionally or inadvertently coming, within the relevant SADs of exposed electrical equipment, either directly or by means of tools, equipment, materials or other objects they may be using or carrying during the work
- the methodology of addressing any relevant electrical hazards identified in PR D 78102 Electrical Hazards and Hazards (document under project review) Section 3
- identification of the local electrically Authorised Person whom can provide advice if required and is available when the work activities are to be undertaken
- identification of potential electric shock conducting paths relevant to the proposed work function and the consequences of electric shock on the human body, (refer to *PR D 78102 Electrical Hazards and Warnings* Section 3.2 Electric shocks and the human body)
- response methodology to an electric shock incident, (refer to PR D 78102)
- dissemination of an established, effective and efficient communication protocol to support the proposed work function and incident response.

5 Authorised Persons

Persons who perform electrical work near or on/within of equipment that forms part of the TAHE Electrical Network are specifically authorised to perform this work. The certifications required by Authorised personnel are identified in *PR D 78701 Personnel Certifications – Electrical*.

Authorised Persons:

- must work in accordance with their authorisation and the relevant Electrical Network Safety Rules (refer to *RL D 79800 Electrical Network Safety Rules*)
- where requested and in accordance with their authorisation, must provide advice to others working around electrical equipment
- may, in accordance with their authorisation, issue Electrical Permits
- may operate mobile plant at the relevant SADs specified in *SP D 79050 Safe Use of Mobile Plant around Electrical Equipment*, provided they are verified as competent on site in accordance with SP D 79050 Section 7 Diagrams and Tables for Safe Approach Distances
- may work as a Safety Observer for mobile plant in accordance with the requirements of SP D 79050.

6 Reference documents

PR D 78102 Electrical Hazards and Warnings

PR D 78700 Working around Electrical Equipment

PR D 78701 Personnel Certifications – Electrical

RL D 79800 Electrical Network Safety Rules

SP D 79049 Safe Approach Distances (SADs)

SP D 79050 Safe Use of Mobile Plant around Electrical Equipment