



**AUSTRALIAN RAIL TRACK CORPORATION LTD**

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**Discipline**  
**Engineering Standard – NSW**

**Category**  
**Services**

**Title**  
**Care & Protection of Underground Pipes & Cables**

**Reference Number**  
**EMP 01 - (RIC Standard: AP 5181)**

**Document Control**

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		Refer to Reference Number	H Olsen	M Owens	Refer to minutes of meeting 12/08/04

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## **About This Standard**

This document establishes requirements for underground cable search and protection.

## Document History

**Primary Source** – RIC Standard AP 5181 Version 2.0

### List of Amendments –

<b>ISSUE</b>	<b>DATE</b>	<b>CLAUSE</b>	<b>DESCRIPTION</b>
1.1	31/08/2004		Reformatting to ARTC Standard
1.2	09/03/2005	Disclaimer	Minor editorial change Document reformatted

## Contents

<b>1. General .....</b>	<b>6</b>
<b>2. General conditions of installation .....</b>	<b>6</b>
<b>3. Location markers .....</b>	<b>6</b>
<b>4. Reporting Irregularities .....</b>	<b>7</b>
4.1. Damage to Signalling and Communications Equipment .....	7
4.2. Damage to Electrical Equipment .....	7

## 1. General

Infrastructure contractors have a responsibility to ensure that their activities do not interfere with underground cables and pipes.

Before permitting any private party, which has approval to bore or excavate under a Railway line, or any contractor to commence work on Railway land, the ARTC General Manager ISP or nominated representative is to be satisfied that the correct procedures have been carried out to ensure that the presence of underground equipment has been determined.

## 2. General conditions of installation

Infrastructure contractors have the obligation to ensure that new underground installations are correctly located and marked, by the service authority or contractor, including:-

- Signalling cables, telephone cables (both of the Railway and of telecommunications carriers) and co-axial cables.
- Electricity mains, both domestic and high tension.
- Water pipes, water mains, sewer pipes, and drainage pipes. While many of these are Railway facilities, there are many which are the property of the various Water Boards and Local Government Instrumentalities throughout the State.
- Pipes for special purposes such as gas, petrol, oil, and other substances.

Cables and pipes on Railway land are to be placed and maintained in accordance with the R.O.A. "Code for the installation of other party's services and pipelines within Railway boundaries" and additional conditions as described in EGS 00 – EGS 07.

## 3. Location markers

Surface markers, underground slabs, and identification tape markers to indicate cable or pipe location must be carefully preserved from damage or removal during the course of any work.

All Signalling underground cables are covered by yellow "danger" tape at minimum 250mm above the cable, except cables laid prior to 1983 which may not have any indicators at all.

Under no circumstances are the markers to be removed without reference to the authority owning the underground cable or pipe.

When markers are displaced for any reason it is the responsibility of the supervisor to ensure that the marker is properly re-established.

The presence of surface markers does not necessarily mean that cable is laid in a direct line from surface marker to marker. The exact location of a cable has still to be determined by checking with the Owner or by trial excavation.

## **4. Reporting Irregularities**

Any damage to any underground facility must be reported to the owning Party.

### **4.1. Damage to Signalling and Communications Equipment**

In the case of signalling or Telecom cables, appropriate Signalling personnel must be immediately informed and no attempt is to be made to rectify the damage by unqualified staff.

### **4.2. Damage to Electrical Equipment**

In the case of Electrical cables, no attempt is to be made to rectify or even to touch exposed cables, but the correct Authority is to be informed immediately.

Work in the immediate vicinity is to cease until repairs have been completed and approval to continue given.

Even if cables or pipes “look disused” they must be treated as live, or in use until conclusive evidence is obtained to the contrary.