Safety Critical Communications

Guideline

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Introduction

Safety Critical Communications are an integral part of the safe and efficient operation of rail networks around Australia.

A goal of the Australian rail industry is for rail traffic to move safely, efficiently, and effectively within and between networks and ensuring the protection of all rail personnel.

Communications have long been known to be a key contributory factor in safety incidents in general. The railways are no exception as evidenced by a number of studies in the UK (Lowe & nock 2007, ORR, Dickinson 2008, Shanahan et al., 2007). The exact number is subject to considerable variance (ranging from 90% - 30%) given the number of other contributory factors at play in most incidents. More recent studies in Australia indicate a similar variance.

Even given the variance in these studies and their conclusions, there is no doubt that effective communication plays a crucial role in ensuring safety. Communication is a major part of good working practices and systems, particularly where people are distributed throughout a geographically spread environment with constantly changing risk in the form of moving rolling stock and highly mobile work forces.

The term 'Safety Critical Communications' is included in the 'Definitions' below. However, this guideline seeks to ensure that all users recognise that the practice of good communications should be extended to cover a range of other areas including (but not limited to) the following activities:

- Emergency situation communications;
- All 'Safeworking' communications including (but not limited to):
  - Proceed Authority;
  - Work on Track Authority;
  - Train Running Information;
  - A Condition Affecting the Network.
- Pre-Start Briefings;
- Permit to Work (e.g. Electrified Territory);
- Shift change handover information;
- Safeworking documentation and logs.

The consideration is whether the result of a failure in communication and the message being transmitted by whatever medium, such as radio, telephone, signal or writing, could result in an incident.

In addition, it should also be considered that where a reason for communication can originate from a 'non-safety critical' situation, there is potential for any miscommunication to evolve into a safety critical situation. For this reason, it is recommended that all communication processes follow the protocols contained in this guideline at all times regardless of the reason for the communication.

Another advantage of ensuring the formality of communication at all times, is that it will aid in ensuring that the persons who are communicating maintain consistency. This means they always use the same language structure and there is no need for them, 'in the heat of the moment', such as an emergency, to be considering which communications protocol to be using.