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All ARTC Networks

Function:

Corporate Safety and Environment

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Guideline



# Guideline for Rail Traffic Crew Reporting in Extreme Wet Weather & Flooding Events

EHS-GL-002

## Applicability

ARTC Network wide

## Publication Requirement

Guideline Reference

## Primary Source

OPE-PR-014 Monitoring and Responding to Extreme Weather Events

## Document Status

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# 1 Introduction

## 1.1 Purpose

The purpose of this document is to provide guidance to Rail Traffic Crew about appropriate reporting, and actions to be taken by Rail Traffic Crew and Network Controllers when confronted with extreme wet weather and flooding events.

In addition to the reporting recommendations stated within this guideline, all workers must comply with the reporting and responding requirements for conditions affecting the ARTC Rail Network as mandated by the respective Network Rules & Procedures.

Please note that this Guideline does not:

- override any operating instructions issued to Rail Traffic Crew provided by a Rail Transport Operator in respect to the slowing or stopping of rail traffic.
- address ARTC's response to emergencies.

## 1.2 Document Owner

The Group Executive Safety and Environment is the Guideline Owner.

The General Manager Operations Services is responsible for ensuring application of this guideline.

The Manager Network Operations are responsible for the day-to-day management of the application of this guideline and are the initial point of contact for all queries relating to this guideline.

## 1.3 Definitions

The following terms and acronyms are used within this document:

Term or acronym	Description
ARTC Rail Network	The rail infrastructure, i.e., track, civil and electrical infrastructure that collectively forms the ARTC Rail Network.
Condition Affecting the Network (CAN)	A situation or condition that affects or has the potential to affect the safety of the ARTC Network.
Extreme Weather Event	Any weather-related event including but not limited to rainfall, floods, electrical storms, and damaging winds which demonstrate potential to impact on the ARTC rail network or the organisation's operations.
Flooding	The covering or submerging of dry land with a large amount of water.
Network Control	The control and regulation of all train movements to ensure the safe, proper, and efficient operation of the Network. Network Control is sometimes referred to as Train Control.
Network Controller	A Competent Worker who authorises, and may issue, occupancies and Proceed Authorities, and who manages train paths to ensure safe and efficient transit of rail traffic in the ARTC Rail Network.
Pooling Water	A small body of standing water due to restricted flow paths.
Rail Traffic	Trains and track vehicles (being a vehicle, usually self-propelled, used mainly for inspecting and maintaining infrastructure).
Rail Traffic Crew	Competent Workers responsible for the operation of rail traffic.
Restricted Speed	A speed that allows rail traffic to stop short of an obstruction within the distance of clear line that is visible ahead.

## 1.4 Reference Documents

The following document support this guideline:

- RLS-PR-44 - ARTC Emergency Management Procedure

Supporting documents for ARTC personnel only:

- NC-003-PG - Condition Affecting the Network
- OPE-PR-014 - Monitoring and Responding to Extreme Weather Events

## 2 Extreme Wet Weather & Flooding

### 2.1 Reporting guidelines for Rail Traffic Crew

In accordance with reporting and responding to a Condition Affecting the Network (CAN), conditions that can or do affect the safety of rail operations in the ARTC Rail Network must be reported promptly to the Network Controller.

During instances of heavy rain, storms and similar circumstances that result in reduced visibility, rail traffic crew should assess and identify the risk to their safety, the safety of the rail traffic and ARTC Rail Network.

In alignment with the assessment, Rail Traffic Crew must operate rail traffic to the conditions.

Rail Traffic Crew must promptly report to Network Control current conditions and actions taken, such as the need to stop the rail traffic or operate the rail traffic at restricted speed.

#### 2.1.1 What to report

If observed, Rail Traffic Crew must advise Network Control if the flood water is:

- To the top of formation.
- To the top of sleeper.
- To the top of rail.
- Moving and likely to dislodge the ballast.
- Dislodging or flowing through the ballast.
- Scouring cuttings / embankments, or damaging formation.

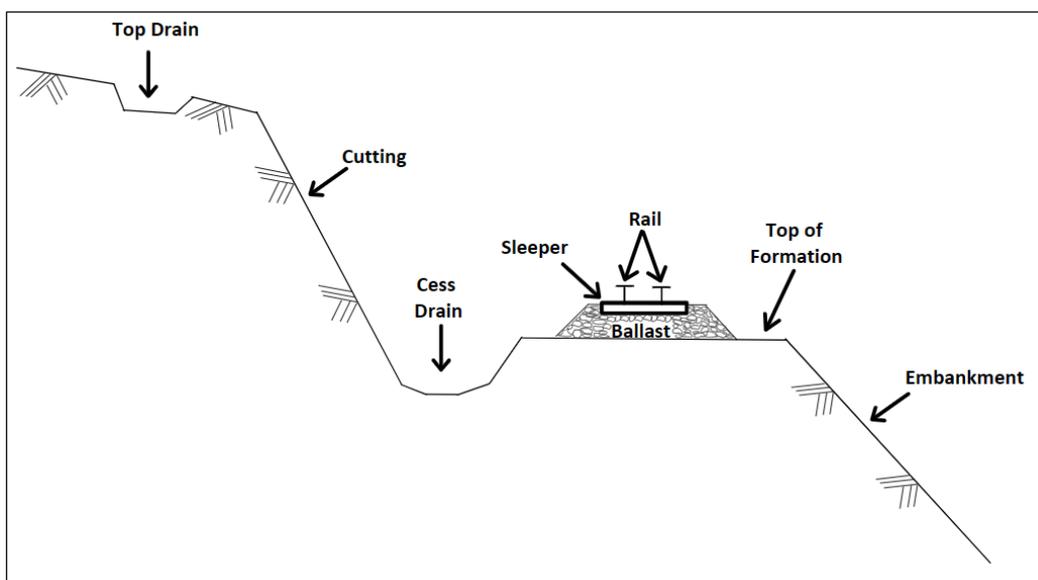


Figure 1. Rail Corridor Infrastructure

Note, Rail Traffic Crew are to avoid operating rail traffic during extreme wet weather events and when flooding has reached the top of the formation, if observed.

### 2.1.2 Additional reporting observations

Report if any of the following is observed:

- Unusual amounts of water pooling next to the track or in the cess.
- High or rising levels in creeks or waterways.
- Unusual amounts of water flowing down the sides of cuttings.
- Fast flowing water near the track or in the corridor.
- Any debris on or near the track.
- Water building up on one side of the track.
- Intense downpour of rainfall significantly reducing visibility that could potentially lead to flash flooding.

## 2.2 Network Controller Responding to reports from Rail Traffic Crew

When Network Controller receives a report of conditions that can or do affect the safety of rail operations in the ARTC Rail Network, the following must be established with the person making the report:

- The location – for example: Track kilometre as well as which side of the track – up/down/both.
- What is being affected by the water – for example: track, cess, embankment, cutting or another structure.
- Is the water level at:
  - The top of formation.
  - The top of sleeper.
  - The top of rail.
- Whether the water is flowing or pooling.
- Whether the water is likely to dislodge ballast, has dislodged ballast or is flowing through the ballast.
- Scouring cuttings / embankments or damage to formation.

For any reports of an unusual amount of water in the ARTC Rail Corridor, the Network Controller must:

- evaluate the potential risks by referring to the information outlined in the ARTC internal training document NC-003-PG Condition Affecting the Network, and
- in the event of an Amber, Red or Black weather alert, adhere to the requirements specified in the document OPE-PR-014 Monitoring and Responding to Extreme Weather Events.

### 3 Key Takeaways for Rail Traffic Crew

In summary, the Rail Traffic Crew must mitigate risks during extreme wet weather and flooding events, and:

- Promptly report to Network Control unusual wet weather events, and any observations of potential or actual impacts on safety of rail operations in the ARTC Rail Network.
- Confirm if Network Control has been informed of the situation previously and if there is any further information available, relating to the condition of the ARTC Rail Network that the Rail Traffic Crew use to inform them on actions to take.
- Stop the rail traffic, or operate at restricted speed, when wet weather conditions may affect safe operations.
- Avoid operating rail traffic during extreme wet weather events and when flooding has reached the top of the formation.
- Advise all accompanying crew members of the situation.