

Derailment Investigation and Analysis Guideline

GUIDELINE





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1 Introduction

1.1 Scope of this Document

This Derailment Investigation and Analysis manual has been written as a reference guide to be used in the investigation of derailments.

This document describes aspects of train operations, rolling stock, infrastructure, and human factors that could cause or contribute to a derailment.

The Rail Safety National Law requires all rail systems to have a Safety Management System (SMS) in place.

SMS is a risk based system, this means that the organisation has identified the main hazards for its activities and assessed the level of risk associated with these activities.

Control measures are then developed and introduced in the form of policies, standards and specifications.

The investigation would check against the system to ensure it is adequately identifying and managing the hazards.

1.2 Common Terms and Definitions

The following terms will be used in the manual, although most have not yet been agreed as standard definitions:

Commander\site manager	An employee delegated responsibility for the direction of staff and resources in the performance of roles and task at the site of Emergency\Incident, recording the events during the Emergency\Incident, and liaison with external agencies		
Emergency Services	The statutory fire, police, ambulance or coastguard services in whose areas a derailment occurs		
Flange Climb Derailment	A derailment in which a wheel of an item of Rolling stock mounts the rail on which it is running so that the flange runs on the rail head before dropping off on the outside of the rail.		
Formal Inquiry	A formally structured inquiry generally implemented in the case of high potential or major accidents.		
Investigation	An investigation into the circumstances of an accident or incident. The need to ensure the appropriate range and depth of investigation will normally necessitate a formal investigation involving a person or team working to a Terms of Reference/remit.		
Lead Investigator	A person appointed to lead the investigation team.		
Mechanism of Derailment	The method or process by which the wheel(s) leave the rail(s). This is not the cause.		
Point of Derailment (POD)	Point of wheel climb evidenced by wheel mark(s) on the rail head, or estimated as slightly before the first wheel mark on the sleepers. It is not the first mark due to dragging equipment although this point may also be significant and should be recorded.		