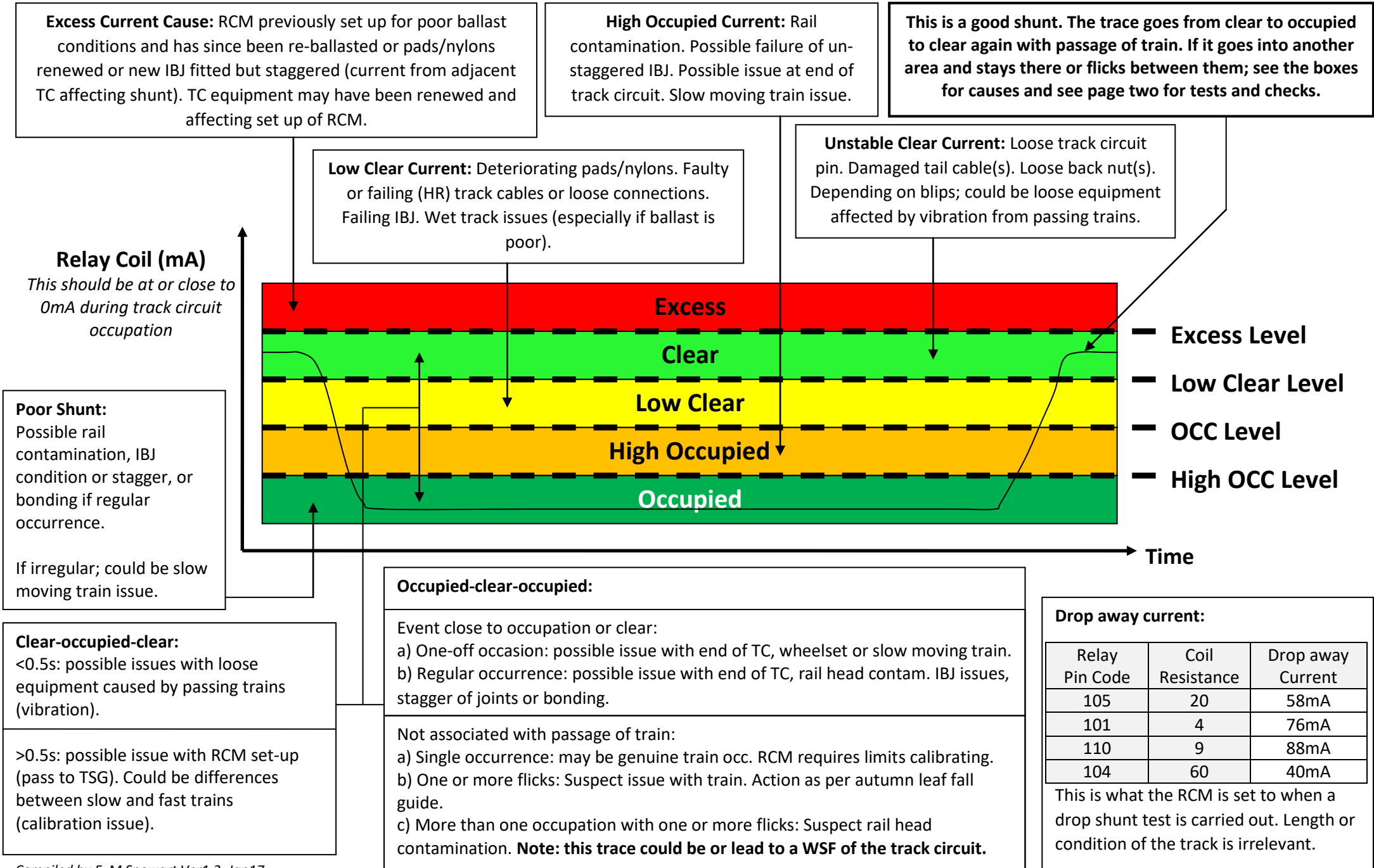


Track Circuit RCM Failure Trace – Quick Reference Guide to Possible Causes – Page one of two

Note: this is a quick reference guide. For a full comprehensive guide, see the 'Event Response Matrix in the 'intelligent Infrastructure Track Circuit monitoring' Guide



Track Circuit RCM Failure Trace – Minimal Testing Guide – Page two of two

Note: this is a quick reference guide. For a full comprehensive guide, see the 'Event Response Matrix in the 'intelligent Infrastructure Track Circuit monitoring' Guide

Check / Test / Examine <i>(carry out test marked with a tick)</i>		Excessive Current	High Occupied Current	Low Clear Current	Unstable Clear Current	Poor Shunt	Clear Occupied Clear	Occupied Clear Occupied ♦
1	Examine track circuit in accordance with SMS TC01; Pay particular attention to any contamination found	✓	✓	✓	✓	✓	✓	✓
2	Check for loose or missing bonds if applicable			✓	✓		✓	
3	Check for loose rail connections at feed end			✓	✓		✓	
4	Check for loose rail connections at relay end			✓	✓		✓	
5	Check for loose terminations in dis boxes and loc/RR at feed end			✓	✓		✓	
6	Check for loose terminations in dis boxes and loc/RR at relay end			✓	✓		✓	
7	Check all cabling for damage	✓	✓	✓	✓	✓	✓	✓
8	Continuity test all tail cables			✓	✓			
9	Insulation test all tail cables			✓				✓
10	Test single core cables with clamp meter (<i>SMS TC00</i>) and compare the resistance.			✓	✓			
11	IRJ test (<i>SMS test 041</i>) all IBJ's within the circuit	✓	✓	✓	✓	✓	✓	✓
12	Check rail clip insulations and pads for security or damage/missing and are installed correctly or recently renewed (as this may impact previously set up RCM)	✓			✓			
13	Check any other insulations within point work if applicable			✓	✓			
14	Check ballast for contamination, height, or if it has been reballasted recently	✓						
15	Check for any possible shorts in rodding, point heaters, signal wires or LC bomacs etc			✓	✓			
16	Check for Pway wet spots and drainage issues			✓	✓			
17	Check for debris, mud and salt in any level crossings if applicable			✓	✓		✓	
18	Check TR's and TPR's for damage or contact arcing etc				✓		✓	✓
19	Check any TC dropping treadles are not obstructed and operate correctly						✓	
20	Carry out residual voltage test including drop shunt and pick-up values							✓
21	Carry out full test of TC with pick up and drop away voltages and also test any TFR's if fitted	✓	✓	✓	✓	✓	✓	✓

Note: these are minimal testing guidelines for an initial response. The signal engineer may request additional or all tests to be carried out.

Pass onto the next team to complete any outstanding tests. ♦WSF test to SMTH Part 05/T002 may be required; seek advice from on-call supervisor. Ver1.2 (Jan17)