

RISSB product for prioritisation

Primary information			
Type of product being suggested:		Standard	
Title of product being suggested:		Train Control Systems Change Management	
Date of suggestion:		28 February 2018	
Reason for suggestion:		Ensure that changes within the signalling and train control systems and interfaces consider and control the arising risks.	
Railway discipline area:		Train Control Systems	
Scope:			
<ul style="list-style-type: none"> • Process requirements for addressing changes to the signalling and train control systems. • Consideration of future requirements. • Managing multiple changes on the one set of signalling infrastructure • Operational requirements for changes and documenting operational performance of the system. • Testing requirements for different levels of changes. • Documentation requirements for changes including configuration management of the as-built system. • Transition requirements for change management of signalling infrastructure. • Communication with stakeholders • Records of change management, design changes and commissioning records of the new/amended systems • Rail user information of the changed systems as required for train drivers, safety personnel, rail protection officers, signaller/controllers, train operating organisations 			
Objective:			
<p>This standard will cover processes for the management of changes to the signalling and train control systems. It will provide a framework for managing the changes that is consistent with the Signal Design Process standard.</p> <p>It will address all the issues that can affect the safety and operational performance of the signalling system and affected by changes. It will provide guidance on the issues that will be considered as changes affecting the signalling and train control systems.</p> <p>The Change Management Framework will be scalable from small to very large projects. It will identify the stakeholders and users of the systems affected.</p>			
Hazard identification:			
1	Personal Injury/death or uncoordinated/inappropriate change to network signalling and train control system	7	Signals design error or wrong side failure 9.10
2	Operational failure of signalling system due to uncoordinated change or commissioning errors	8	train detection design error or wrong side failure 9.12
3	Infrastructure damage or train/rollingstock damage through uncoordinated/inappropriate change to network signalling and train control system	9	Interlocking design error or wrong side failure 9.13,
4	Level crossing design error or wrong side failure 9.7	10	Train Control System design error or wrong side failure 9.13,
5	Points / turnout design error or wrong side failure 9.8	11	Network operations restricted by uncoordinated/inappropriate change

6	Power supply design error or wrong side failure 9.9	12	Interfaces to other networks and train operators restricted by uncoordinated/inappropriate change
Benefits:			
<u>Safety</u>			
Addresses safety hazards arising from changes to the rail network. Ensures that the Change Management process is correctly recorded for each instance of a change. Ensures that information on the changed infrastructure is available for the Users of the systems			
<u>Interoperabilityⁱ / harmonisationⁱⁱ</u>			
Will provide a means of reliable consultation with stakeholders and operators on the network. Will identify common information that needs to be shared with the stakeholders for the change Will ensure that the resultant rail infrastructure is documented for Users to be manage rail operations.			
<u>Financial</u>			
Minimises rework resulting from changes to network. Ensures that the expected changes to the network and the expected benefits are clearly documented at the commencement and verified as delivered after the change process			
<u>Environmental</u>			
Ensures that the change management considers the environmental impact and regulatory requirements			
Impacts:			
Projects leading to change management vary in scale from small projects to very large having an impact on the whole network. Defining processes and gates that are scalable across this range of projects will be difficult. Some rail organisations already have processes and getting a common framework may identify different approaches to change management.			

i Interoperability - the ability of a process, system or a product to work with other process, systems or products (aka compatible systems through managed interfaces).

ii Harmonisation - the act of bringing into agreement so as to work effectively together (aka uniformity of systems).