RISSB Product Proposal (and Prioritisation)

(The information you provide in this form will be used to help stakeholders determine where the proposed product sits within the railway's priorities. ***The more thorough your submission, the better the decision-making process in prioritising new ideas.***

Light blue italicised text is for guidance and should be deleted as the form is completed. Feel free to write more words, text boxes will expand as necessary.)

Primary information	
Type of product being suggested:	*Code of practice (CoP)*
Title of product being suggested:	CoP for safe work on and near electrification infrastructure
Date of suggestion:	*21/02/2019*
Reason for suggestion:	*Industry opportunity to consolidate and rationalise basic electrical safety requirements.* *Identified by multiple electrified railway infrastructure managers during benchmarking works.*
Railway discipline area:	*Infrastructure,*

Objective:

To review existing roles and procedures for the management of work on and near electrified railways to consolidate whenever practicable:

- *roles and*
-
- *safe working practices*

with the objective to improve efficiency and safety of operations.

Scope:

Development and publication of a consolidated set of:

- *roles and*
- *induction/training requirements*
- *safe working practices*

to facilitate safe work on and near electric traction infrastructure.

It is proposed the material should focus on:

- *High voltage alternating current (AC)infrastructure (including 33/22/11 kV 3 phase supplies and 25 kV single phase supplies).*
- *Addressing whenever practicable/agreeable direct current (DC) railway infrastructure including light rail systems.*
- *Providing a concise set of minimum requirements to ensure non-electrical workers are capable to identify electrical hazards (across railway jurisdictions) and identify sound controls to address electrical hazards*
- *Developing a consolidated permit system envisaged to incorporate On permits and Vicinity permits.*

The following material will be out of scope

- *Safe working requirements for low voltage (LV) non traction supplies (e.g. servicing railway facilities including stations and depots).*
- *Isolation of electrical energy within rollingstock and other track vehicles.*

Hazard identification: *(what safety hazards would the proposed product seek to address)*

1	Electric shock	6	Late hand over of railway possessions
2	Electrocution	7	
3	Arcing burns	8	
4	Safety roles ambiguity across railway jurisdictions	9	
5	Safety practice ambiguity across railway jurisdictions	10	

Definitions

i A ***Guideline*** is a set of informative guidance. It is not normative but informative.

A ***Code of Practice*** is a set of descriptions. It is the "how" one can meet a higher-level requirement (either of a Standard, or a piece of Legislation). It is normative, but by its nature can contain several options about how to achieve compliance with the higher-level requirement. It can also have some informative guidance within it if it is more practical than writing a separate guideline.

A ***Standard*** is a set of requirements only. It is the "what" must be done to be claim compliance to the standard. It is normative. It can also contain optional and/or supplementary requirements, but they still should be worded as requirements.

Benefits: *(enter wherever applicable in below categories)*

Safety

Electrical fatality statistics across Australia and New Zealand (beyond the railway industry) indicate a need to focus attention on improving safety outcomes for:

- *non-electrical workers working near electrical equipment (in particular HV lines and cables)*
- *the public.*

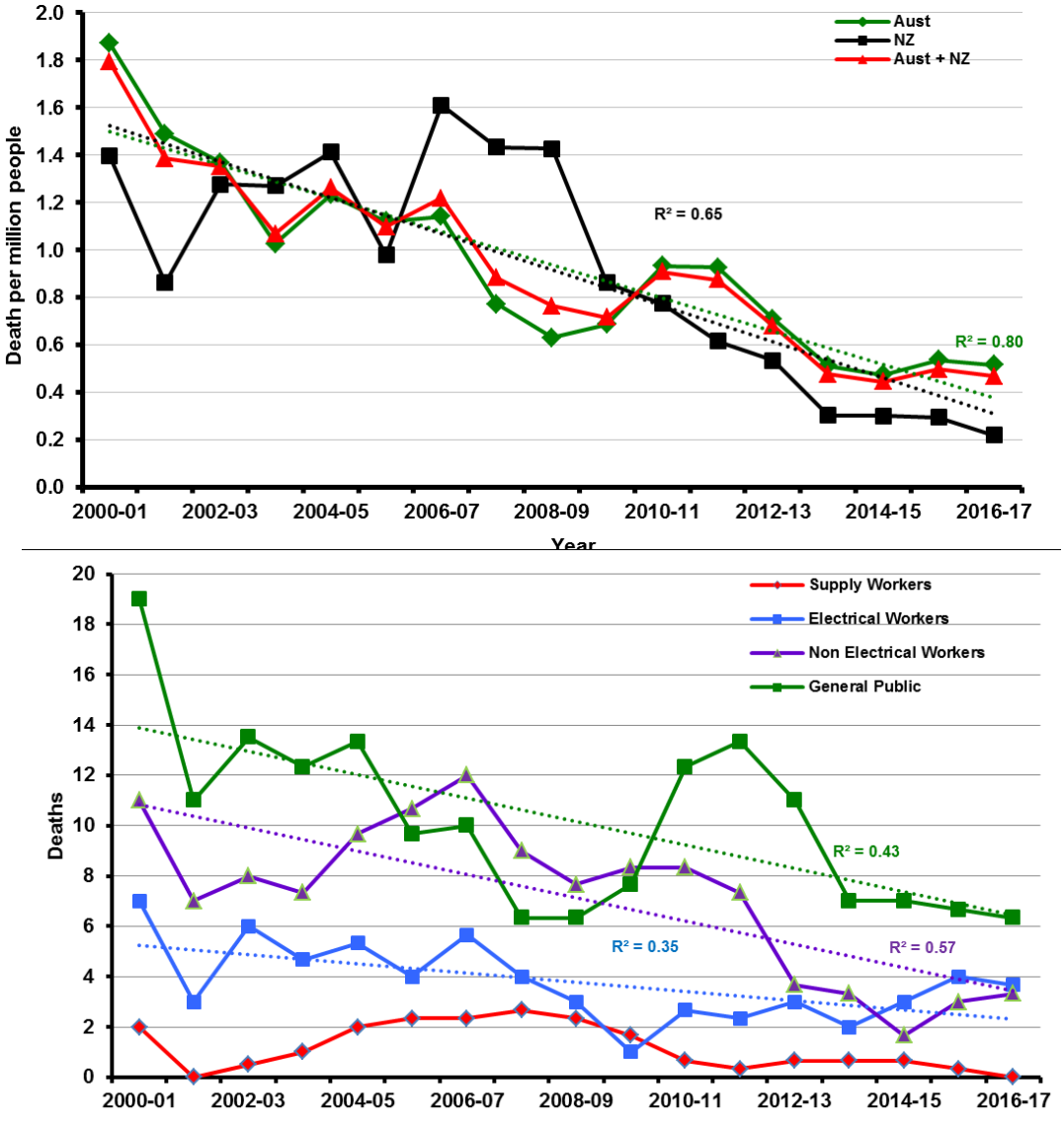

Figure 1: Electrical fatality statistics for Australian and New Zealand for th4e last 16 years indicate an improving trend across industries. However, improvement are still required to improve outcomes particularly for non-electrical workers and the public.

This proposal focuses on improving the safety outcomes for non-electrical workers working in electrified railways.

Interoperability / harmonisation

The objective of this product would be to provide a consistent set of practical minimum requirements that could be adopted by all electrified railways. It aims to consolidate whenever possible requirements across jurisdictions to enable industry participants to work safely across railway jurisdictions.

Financial

(Describe how the product would increase efficiency/productivity/affordability.

- *How it would drive out cost. What would it cost to implement the product – change systems/training etc.*
- *How it might support innovation, trade, and economic benefits, or increase competitiveness*

Where possible be quantitative.)

Environmental

(Describe how the product might contribute to protection of the natural environment.

Impacts:

Participating railways will need to support the project with relevant experts to ensure a common set of terminology, roles and practices can be agreed and published in a timely manner. Typical industry consultants may not have enough experience across jurisdictions to be able to consolidate minimum requirements in a timely and efficient manner.

The RISSB Electrical Management committee may need to be re-established to oversee this work.

Reference / source materials: *(This is very important; it will directly impact the tone/style/flavour of the product. It will also have an impact on the research we undertake and therefore impact timescales/cost. It may also be useful to identify reference / source materials that should be avoided.)*

#	Reference / source material	Available from
1		
2		
3		
4		
5		

Definitions

ii ***Interoperability*** is the ability of a process, system or a product to work with other process, systems or products (aka compatible systems through managed interfaces).
iii ***Harmonisation*** - the act of bringing into agreement so as to work effectively together (aka uniformity of systems).