



AUSTRALIAN ASSOCIATION OF LIVE STEAMERS

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Dear Secretary,

Code of Practice – Additional Motion

Firstly, thank you to those clubs who have already responded to the Draft Code of Practice which was circulated in mid-October. The response has been great, and receiving your comments early helps to avoid a last minute rush.

The purpose of this letter is to bring to your attention a motion for an addition to the Code of Practice. In recent years we have seen an increase in the use of radio control for non-steam locomotives and there are certain legal obligations when using radio control to haul public passengers. This proposal meets those obligations.

Referring to your copy of the Draft Code of Practice, this is what is required.

Remove the final sentence from clause 6.2.7:

“Under no circumstances may any form of remote control device be used to operate a locomotive when passenger hauling. (See Definitions in Appendix 1)”

Delete clause 11.6.1.6

Add additional as follows:

11.7 Radio Control

11.7.1 All locomotives fitted with Radio Control for direct operation of the locomotive shall:

11.7.1.1 Use FM transmission with digital direct sequence, automatic frequency hopping (DSSS/FHSS) or directly-equivalent manufacturer-specific implementations

11.7.1.2 Operate on a frequency higher than 400MHz (should be 2.4GHz or above)

11.7.1.3 Operate only on a continuous data stream being received, such that if received radio data is:

- (a) lost,
- (b) non-continuous, or
- (c) otherwise interfered with from any source,

the receiver returns the throttle output to neutral throttle position with no intervention from the Driver (commonly called failsafe mode).

11.7.1.4 Demonstrably return all present-direction traction power to nil in the event of:

- (i) throttle signal loss in wiring between the Receiver and the traction control system,
- (ii) transmitter and receiver going out of range or otherwise losing connectivity, or
- (iii) power loss to the Receiver and/or Transmitter

11.7.1.5 Should apply an appropriate form of braking to slow the train, via train braking systems and/or locomotive dynamic/regenerative braking.

11.7.2 All locomotives in use for Public Running operations fitted with Radio Control for direct operation of the locomotive shall comply with the following additional requirements, while first complying with or exceeding all requirements in *Section 1*:

11.7.2.1: The locomotive shall have fitted a tether pull-stop device electrically hardwired into the locomotive traction control system, physically attached at the opposite end of the tether to the Driver-held radio control Transmitter. This shall be easily physically directly actuated by the Driver in the event of an emergency with a simple pull motion. When actuated by the Driver, it must:

- (i) Return all present-direction traction power to nil immediately
 - (ii) Apply all mandated train brakes (as defined elsewhere for public passenger hauling)
- Examples of a tether pull-stop device can be found on various leisure equipment, e.g. Jet Skis.

11.7.3 Under no circumstances shall any form of radio control device be used to operate a steam locomotive of a gauge 3-1/2" or above.

Definitions (Appendix 1):

Change:

- **“Remote” to “Radio” Control** — any form of wireless control not directly attached to the locomotive by cable or any other physical connection.

Add:

- **Present-Direction Traction Power** – traction power contributing to the present movement in the direction of travel of the locomotive/train (as against detracting from it under regenerative or dynamic braking of the locomotive).

It is not proposed to include this in the Code of Practice before the next AGM. Instead, because it represents a major addition it will be placed on the AGM agenda as a separate item. Because it is something quite new we are taking this opportunity to give you time read it and digest it and we welcome your feedback.

Cheers,



David Proctor
Chairman
Australian Live Steamers Safety Committee

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