

15 June 2018

Proposed Amendment: RISSB Standard AS 7527:2015

Rationale:

RISSB Standard AS7527:2015 Event Recorders describes the requirements for event recorders installed in locomotive, self-propelled passenger, and infrastructure maintenance rolling stock vehicles. The main purpose is to ensure that event recorders fitted to rolling stock capture a minimum set of appropriate data for the use of rolling stock operators, rail infrastructure managers, investigators and maintainers for forensic investigations of rail incidents. In NSW it is mandatory to comply with their 'Data Loggers' Code which obviously creates an inconsistency in application of the Rail Safety National Law. This proposed amendment would align AS7527 with the NSW Data Loggers Code paving the way for the Code's retirement, thus improving national harmonisation.

Amendment:

Section 1.2.3 to become....

For existing event recorder installations, only sections 2, 4.1.3 and 9 apply.

Section 2.4 to become....

For rolling stock fitted with analogue or tape type data logger or recorders, such as Hasler recorders, the system will need to meet the requirements specified in section 4.1.3 and section 9.

A new section 4.1.3 (and sub sections) be created....

- 4.1.3 Minimum recording requirements
 - 4.1.3.1 Legacy, tape based data loggers should, as a minimum record the following information:
 - Train speed
 - Distance
 - Time
 - Brake status i.e. brake pipe pressure or brake cylinder pressure
 - 4.1.3.2 Existing, electronic data loggers should, as a minimum record the following information:
 - Train speed
 - Distance
 - Time
 - Braking, brake pipe and brake cylinder pressure
 - Throttle/master controller setting
 - Safety devices acknowledgement, for example, acknowledgment of deadman device, vigilance device, trip gear

- Headlight switch operation
- Horn operation (on leading unit in case of multiple units)

For train or safety monitoring purposes the operator may wish to measure a far greater number of parameters, however, that is at the discretion of the operator.

4.1.3.3 For locomotives operated by two drivers, electronic data loggers fitted to all new and retrofitted rolling stock should make provision for identifying the driver operating the controls of the train.

4.1.3.4 Electronic data loggers fitted to all new and retrofitted rolling stock should, as a minimum, record the following information:

- Train speed
- Distance
- Time
- Throttle/master controller setting
- Operation (i.e. continually monitoring and recording air pressures and voltages, where appropriate) of train automatic brake⁴
- Operation (i.e. continually monitoring and recording air pressures and voltages, where appropriate) of the independent brake, if equipped⁵
- Dynamic braking effort achieved
- Release of the electro pneumatic brake (if fitted)
- Operation of safety devices, for example, acknowledgment of deadman device, vigilance device, trip gear
- Driver response to safety devices, for example, acknowledgment of deadman device, vigilance device, trip gear
- Headlight switch operation (includes record of high and low operation)
- Horn operation (on leading unit in case of multiple units includes high and low operation)
- Wheel slip/slide operation (if equipped).

A new section 9.10 be created....

Rolling stock operators should have a program in place to ensure data loggers are maintained, including a requirement (where data loggers record on tape) to ensure new tapes are installed when necessary.

Contact:

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