Discipline
Engineering Standard – NSW

Category
Signalling

Title
Surveillance Inspections

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Document Control

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About This Standard

This Standard set out the requirements for experienced senior level Signal personnel to conduct surveillance inspections on the signalling system as part of a regime to ensure the safety, integrity, and reliability of the system.

Document History

Primary Source – RIC Standard SC 00 52 00 45 SI Version 2.0

List of Amendments –

ISSUE	DATE	CLAUSE	DESCRIPTION
1.1	01/09/2004		▪ Reformatting to ARTC Standard
1.2	14/03/2005	Disclaimer	Minor editorial change
	13/08/2010		Superseded by ESM-00-01

Contents

1 GENERAL

Surveillance inspections by experienced, senior level, signalling maintenance officers form part of the regime for monitoring the safety integrity of the signalling system.

The primary objectives of the surveillance inspections are directed at signalling safety and reliability and are:

1. to monitor the condition of the equipment thoughout the maintenance area in order to determine priority based programs and budgets for renewal, repair or rehabilitation.

2. to monitor the standard of maintenance thoughout the maintenance area in order to direct any required corrective actions and to plan for improvement.

3. to monitor the level of compliance thoughtout the maintenance area with required procedures and practices, special instructions, etc. in order to direct any required corrective actions and/or recommend improvements to the procedures etc.

Secondary objectives of the inspections are:

4. to monitor the cost-effectiveness of maintenance in order to direct any required corrective actions and to plan for improvements.

5. to monitor the efficiency and effectiveness of the signalling system in meeting the operational requirements in order to correct deficiencies and propose improvements.

6. to communicate directly with maintenance staff in their work environment and to give them the opportunity to directly raise issues and receive feed back on matters affecting them.

7. to communicate directly with local operations and other discipline staff who are serviced by or provide services to the signalling discipline.

The surveillance inspections are to be scheduled on a regular basis to achieve the primary objectives over the maintenance area in a two year period.

The surveillance inspections carried out shall be recorded and the results of the inspections are to be documented and retained on file. The documentation shall provide objective evidence of the performance of the inspection.

Documented outcomes from the inspections could be ‘Notes of Inspection’ issued with action requirements (should be priority based and time scaled where appropriate), training programmes to improve staff competency, arrangements for increased supervision, adjustments to rosters, local instructions to correct deficiencies, renewal programs, recommendations for changes to procedures, etc,.

Control systems shall be in place to ensure that any corrective actions are satisfactorily progressed and completed to required timescales.

An important aspect of surveillance inspections is that it provides an opportunity to assess staff competence and compliance with procedures by observing staff carrying out their work. The most satisfactory way to know if people understand and can perform to the proper procedures is to observe them doing it or ask them to demonstrate how they do it. Senior level signalling maintenance officers are to take every opportunity to satisfy themselves of staff competence and compliance in this manner, and to require the same of their and other supervisory staff.

Senior level signalling maintenance officers should record occasions where they have directly observed staff performing safety related duties.

While it may not be practical for the surveillance inspections to cover every single item of equipment on the district every two years, the breadth and depth of inspections of equipment and activities shall adequately achieve the seven objectives listed above. In travelling along the whole of the signalled lines on the maintenance area, the surveillance inspections shall include in-depth examination and test of judiciously selected equipment items and activities and include inspections of selected areas or vital aspects that are out of the way or awkward to access or maintain, or that may be missed by inexperienced signalling employees. The inspections would include tests of the adjustment of some facing point locks and points detectors.

While the inspections are to be scheduled and preferably be conducted with the respective signalling maintainers, the senior level signalling maintenance officers should also capitalise on any other opportunities to conduct complete or partial inspections.

The surveillance inspections are also to monitor environmental safety aspects.

2 SPECIFIC SIGNAL ENGINEER INSPECTIONS AND TESTS

In addition to the surveillance Inspections set out in Paragraph 1.0 there are a number of specifically nominated inspections and tests required to be carried out by a Signal Engineer or a suitably accredited and authorised delegate.

The performance of these particular inspections and tests can contribute towards the two yearly surveillance inspections for that equipment and location by satisfying primary and/or secondary objectives listed in Paragraph 1.0

The specific Signal Engineer inspections and tests are,

a) Mechanical locking and mechanical interlocking tests every two years (see SMP 22)

b) Relay interlocking tests where required every five years (SMP 22)

c) Electric Staff instrument inspections and tests every two years (SMP 33)

d) Level crossing warning system inspections and tests every three months for actively protected level crossings without booms or remotely controlled level crossing monitors, every six months for level crossings with automatic booms or remotely controlled level crossing monitors and every 12 months for level crossings with booms and remotely controlled level crossing monitors. (see SMP 36)

