



Commentary for Standard:

New ESM-Maintenance Standards 2010

Version: Various

1 Acknowledgement

ARTC Maintenance & Construction Staff and Construction Contractor employees (or Design Consultancies) are required to sign a briefing form to acknowledge they have read this commentary and received a briefing from their Team Leader / Signals Work Group Leaders and they understand the implications the standard has on their duties with regard to work on ARTC Infrastructure.

2 Operable Dates

2.1 This Commentary covers the following Signals Maintenance Standards:

ESM-00-01	Signals Inspections
ESM-00-02	Failures
ESM-00-03	Procedure - Signal Irregularities and Wrong Side Failures
ESM-00-04	Procedure - Management of Signalling & Control System Failures
ESM-00-05	Damage to Signalling & Level Crossing Equipment - Standard
ESM-00-06	Damage to Signalling & Level Crossing Equipment – Procedure
ESM-00-10	Test & Certify Equipment Worked on
ESM-04-01	Maintenance & Sighting of Semaphore Signals and Train Order Indicators
ESM-05-01	Testing of Interlockings
ESM-07-01	Track Circuits- Maintenance - Policy
ESM-07-02	Track Circuits – Maintenance - Procedure
ESM-07-03	Microtrax Coded Track Circuits – Procedure
ESM-08-01	Electric Train Staff Instruments
ESM-24-01	Bridging or False Feeding Signalling Circuits
ESM-26-01	Maintenance Responsibilities & Frequencies
ESM-26-02	Technical Maintenance Plans
ESM-26-03	Signal Maintenance Latitudes
ESM-26-04	Signalling Service Schedules Index

2.2 Maintenance Operable Date

The Maintenance Operable Date is 1 September 2010. This is the date for application of the standard. Use of the superseded standards should cease on 1 October 2010. Where time is required to achieve compliance in all maintenance activities and performance levels to the new standards and revised standards, Corridor Management is responsible for producing and managing an Implementation Plan.

2.3 Design Operable Date and Retrospective Requirements

The Operable Date for Design or design staff aspects of these standards is 1 September 2010. Use of the superseded standards should cease on 1 October 2010.

2.4 Construction Operable Date and Retrospective Requirements

The Operable Date for Construction or construction staff aspects of these standards is 1 September 2010. Use of the superseded standards should cease on 1 October 2010.

3 Training Process

3.1 Maintenance

All ARTC Maintenance Staff are to be briefed by their Team Leaders/ Signals Work Group Leader / Signal Manager about ESM-Maintenance. The briefing is to be carried out via a tool box meeting or team briefing. This commentary shall be printed and distributed to all staff attending the briefing. Staff must sign the Briefing Record form to acknowledge that they have read this commentary, received a briefing and that they understand the implications the standard has on their duties. The Team Leaders shall provide feedback to the Managers demonstrating the completion and implementation of the briefing. Team Leaders shall keep the records of all staff signing acknowledgement of the commentary and briefing. This information shall be available for quality auditing.

This shall include all contractors working within the ARTC structure for maintenance activities.

All external Contractors performing maintenance activities must ensure that all staff who may work on ARTC maintenance activities are briefed about ESM-Maintenance. The briefing is to be carried out via a tool box meeting or team briefing. This commentary shall be printed and distributed to all staff attending the briefing. Staff must sign to acknowledge that they have read this commentary, received a briefing and that they understand the implications the standard has on their duties. Maintenance Contractors shall keep the records of all staff signing acknowledgement of the commentary and briefing.

This information shall be available for quality auditing.

3.2 Construction

All external Contractors performing construction activities must ensure that all staff who may work on ARTC construction activities are briefed about ESM-Maintenance. In particular reference should be made to:

ESM-24-01	Bridging or False Feeding Signalling Circuits
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The briefing is to be carried out via a tool box meeting or team briefing. This commentary shall be printed and distributed to all staff attending the briefing. Staff must sign to acknowledge that they have read this commentary, received a briefing and that they understand the implications the standard has on their duties. Construction Contractors shall keep the records of all staff signing acknowledgement of the commentary and briefing.

There are no specific training requirements for Construction staff. Construction staff involved in maintenance associated with construction or commissioning of new signals infrastructure would be briefed as per Maintenance Contractors staff.

3.3 Design

All external Contractors performing design activities must ensure that all staff who may work on ARTC design activities are briefed about ESM-Maintenance. In particular reference should be made to:

ESM-24-01	Bridging or False Feeding Signalling Circuits
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The briefing is to be carried out via a tool box meeting or team briefing. This commentary shall be printed and distributed to all staff attending the briefing. Staff must sign to acknowledge that they have read this commentary, received a briefing and that they understand the implications the standard has on their duties. Design Contractors shall keep the records of all staff signing acknowledgement of the commentary and briefing.

There are no specific training requirements for Design staff. Design staff involved in maintenance associated with construction or commissioning of new signals infrastructure would be briefed as per Maintenance Contractors staff

4 Outline of Standard

The ESM signals maintenance standards detailed above are new common maintenance standard that will be introduced across all ARTC jurisdictions. The standards and procedures outline the process involved for the nominated maintenance activities. Previously these had varied between the different ARTC jurisdictions and may have been covered by legacy standards and procedures derived from the preceding rail infrastructure manager.

5 Key Changes or Updates in the Standard

5.1 Changes to NSW Jurisdiction

A number of NSW standards have been superseded by the new signals maintenance standards. These are listed in the attached table. Some existing standards have been part superseded and the resultant updated standards are referenced in the table.

5.2 Changes to VIC Jurisdiction

The signals maintenance standards are all new for Victoria.

5.3 Changes to Western Jurisdiction (S Australia and W Australia)

The signals maintenance standards are all new for South Australia and Western Australia. The existing S3 specification in Western Jurisdiction is superseded.

5.4 New to All areas

nil

5.5 Deleted Requirements

nil

6 Special Tool Requirements

6.1 Hardware

There are no special tool requirements implemented in this group of standards.

6.2 Software and Systems

These standards do not change the maintenance service schedules or the maintenance periods. Administrators of signals maintenance work order systems shall undertake a check that the new standards are referenced as appropriate and that references to superseded standards are updated.

6.3 Forms

Forms for the new signals maintenance standards are listed in the attached table.

7 Changed Management Systems

7.1 Ellipse

The respective signal maintenance staff shall review the Ellipse, SHASS and Maximo systems for item 6.2.

7.2 Reports

nil

7.3 Track Circuit History Cards

The Track Circuit History Cards are now incorporated in work instruction ESI-07-03.

8 Retrospective Requirements

There are no retrospective requirements for the signals maintenance standards.

9 Exemptions and Exclusions

The requirements of ESM 00 01 and the maintenance frequency are being reviewed. The Operable Date in South Australia, Western Australia and Victoria for ESM 00 01 is 1 December 2010.

10 Other Issues

10.1 User and Stakeholder Feedback

A survey will be issued to Users and Stakeholders regarding the Signals Maintenance Standards, the Intranet/Extranet format for them and the method of Distribution of Information on the 1 November 2010.

10.2 Compliance with new Signals Maintenance Standards

A review will be undertaken of all User groups of the Signals Maintenance Standards commencing on 1 December 2010.

New and Superseded Signals Maintenance Standards

New Standard		Superseded Standard		
Standard ID	Standard Title	Standard ID	Standard Title	Region
ESM-00-01	Signals Inspections	SMP45	Surveillance Inspections	NSW
ESM-00-02	Failures	SMP04	SMP04 Failures – part superseded <i>Revised SMP04 v1.4 released (NSW)</i>	NSW
ESM-00-03	Procedure - Signal Irregularities and Wrong Side Failures	SMP04		NSW
ESM-00-04	Procedure - Management of Signalling & Control System Failures	SMP04		NSW
ESM-00-05	Damage to Signalling & Level Crossing Equipment - Standard	SMP 05	Damage to signalling equipment including cables - to be withdrawn	NSW
		S3	Signals Inspection & Assessment	S Aust
ESM-00-06	Damage to Signalling & Level Crossing Equipment – Procedure	SMP 05	Damage to signalling equipment including cables - to be withdrawn	NSW
		S3	Signals Inspection & Assessment	S Aust
ESM-00-10	Test & Certify Equipment Worked on	SMP10	SMP10 Testing & Certifying Equipment worked on during Maintenance - part superseded <i>Revised SMP10 v1.4 released (NSW)</i>	NSW
ESM-04-01	Maintenance & Sighting of Semaphore Signals and Train Order Indicators	SMP31	Maintenance of Signals Sighting & Signals – part superseded. <i>Revised SMP 31 v1.3 released (NSW).</i>	NSW
ESM-05-01	Testing of Interlockings	SMP22	Testing of Interlockings	NSW
ESM-06-01	Facing Point Lock & Detection Testing	SMP28	Points Detection Test separate electrical	NSW
		SMP29	Facing Point Lock Testing mechanical	
		SMP30	SMP30 Facing Point Lock & Detection Testing combined – part superseded <i>Revised SMP30 v1.3 released (NSW)</i>	NSW
ESM-07-01	Track Circuits- Maintenance - Policy	SMP25	Track Circuits	NSW
ESM-07-02	Track Circuits – Maintenance - Procedure	SMP25	Track Circuits	NSW
ESM-07-03	Microtrax Coded Track Circuits – Procedure	SMP37	Microtrax	NSW
ESM-08-01	Electric Train Staff Instruments	SMP33	Electric Train Staff	NSW
ESM-24-01	Bridging or False Feeding Signalling Circuits	SMP02	Bridging or False Feeding of signalling circuits	NSW
ESM-26-01	Maintenance Responsibilities & Frequencies	SMP17	Maintenance Responsibilities, Frequencies, Recording	NSW
		S3	Signals Inspection & Assessment	S Aust
ESM-26-02	Technical Maintenance Plans	SMS15	Technical Maintenance Plan	NSW
ESM-26-03	Signal Maintenance Latitudes			NSW
ESM-26-04	Signalling Service Schedules Index	SMS16	Signalling Service Schedule	NSW

Signalling Maintenance Forms

Number	Title	Last Updated	Version	Document Type (under current document)	Relevant Procedure or Work Instruction	Applicability					
						SA (S)	WA (W)	VIC (V)	NSW (N)	CRN (C)	QLD (Q)
Interlockings, CBI Field Equipment											
ESM0501F-01	Mechanical/Relay Locking Test Certificate	13 Aug 10	1.1	Common Standard	ESM-05-01	S	W	V	N	C	Q
ESM0501F-02	Design Integrity/Control Table Function Test Certificate	13 Aug 10	1.1	Common Standard	ESM-05-01	S	W	V	N	C	Q
ESM0501F-03	Microlok Configuration Data Form	13 Aug 10	1.1	Common Standard	ESM-05-01	S	W	V	N	C	Q
Field Equipment: Track Circuits, Trackside Equipment											
ESI0703F-01	50Hz AC Track Circuit History Card	11 Jun 10	1.0	Work Instruction	ESI-07-03				N	C	Q
ESI0703F-02	DC Track Circuit History Card	11 Jun 10	1.0	Work Instruction	ESI-07-03				N	C	Q
ESI0703F-03	WB&S FS2500 Track Circuit History Card	11 Jun 10	1.0	Work Instruction	ESI-07-03				N	C	Q
ESI0703F-04	ABB ML T1 21 Track Circuit History Card	11 Jun 10	1.0	Work Instruction	ESI-07-03				N	C	Q
ESI0703F-05	Microtrax Coded Track Circuit History Card	11 Jun 10	1.0	Work Instruction	ESI-07-03				N	C	Q
ESI0703F-06	GEC-Alsthom/Jeumont-Schneider Track Circuit History Card	06 Aug 10	1.0	Work Instruction	ESI-07-03				N	C	Q
ESI0703F-07	CSEE Type UM71 Track Circuit History Card	06 Aug 10	1.0	Work Instruction	ESI-07-03				N	C	Q
Train Authority Systems, Train Order Systems, Token and Tokenless Block											
ESM0801F-01	Maintenance Visit Record – Miniature Electric Staff Instruments	13 Aug 10	1.1	Common Standard	ESM-08-01	S	W	V	N	C	Q
ESM0801F-02	Keys/Staffs Sent for Repairs or Alterations	13 Aug 10	1.1	Common Standard	ESM-08-01	S	W	V	N	C	Q
SMP33F-01	Maintenance Visit Record – Miniature Electric Staff Instruments This document has been superseded by Standard Form ESM0801F-01	13 Nov 07	1.0	NSW Standard	SMP 33						
SMP33F-02	Keys/Staff Sent for Repairs or Alterations This document has been superseded by Standard Form ESM0801F-01	13 Nov 07	1.0	NSW Standard	SMP 33						
In Service											
ESM2401F-01	Authority for Temporary Bridging of Signalling Circuits	13 Aug 10	1.1	Common Standard	ESM-24-01	S	W	V	N	C	Q
ESM2401F-02	Authority for Temporary Setting of Signalling Functions	13 Aug 10	1.1	Common Standard	ESM-24-01	S	W	V	N	C	Q

ESM Maintenance Commentary Toolbox Briefing - Record of Briefing

The following hereby confirm attendance at a Toolbox Briefing of this Commentary and the Signalling Standards referred therein. This also confirms that they understand the requirements of the Standard and will implement it from the Operational Date.

Work group: **Organisation:**

Location:

Date:

Name (print)	Position (print)	Signature

Briefing performed by:

Name (print): **Position:** **Signature:**