

Engineering Procedure  
Signalling and Control Systems

PR S 43015

# Plan and Direct Inspection and Testing of Signalling Works (SCP15)

Version 1.0

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Procedure

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## Document control

Version	Date	Author/ Prin. Eng.	Summary of change
1.0	04 June 2018	Mark Albrecht	First issue as Sydney Trains document

## Summary of changes from previous version

Summary of change New Publication	Section

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# 1 PR S 43015A Plan and Direct Inspection and Testing of Signalling Works (SCP15A)

This unit covers the procedures and the current requirements for the authorisation of personnel to Plan and Direct Inspection and Testing of Signalling Works.

1.1 Item	1.2 Details
1. Prerequisites	Refer to Engineering Standard Signalling & Control Systems Competency Standards ST S 43015.
2. Application	<p>Candidate submits request for authorisation for Plan and direct Inspection and Testing of Signalling Works.</p> <p>Prior to assessment, candidates will submit</p> <ul style="list-style-type: none"> <li>• Portfolio of documentary evidence of appropriate training and qualifications held, and</li> <li>• Copies of log book pages showing relevant experience (or in default, a verified CV extract showing when relevant experience was achieved) as described in MN S 41412</li> </ul>
3. Assessment requirements	<p>The candidate shall be able to:</p> <ul style="list-style-type: none"> <li>• Demonstrate Technical competencies as described in Engineering Standard Signalling &amp; Control Systems Competency Standard ST S 43015.</li> </ul>
<p>4. Assessment</p> <p>Desktop Assessment</p>   <p>Behavioural Assessment</p>   <p>Hands on Assessment</p>	<p>The assessment is in three parts</p> <ul style="list-style-type: none"> <li>• By review of the Candidate's portfolio of Evidence and by responses to questioning by the assessor, they demonstrate knowledge and understanding of Plan and Direct Inspection and Testing of Signalling Works, and</li> <li>• Candidate meets the requirements of the selected behavioural competencies survey by completing the on line OPQ</li> <li>• Candidate demonstrates ability to undertake Plan and Direct Inspection and Testing of Signalling Works as described in Engineering Manual Signalling &amp;</li> </ul>

<p><b>5. Competence Assessor</b></p> <p><b>6. Assessment Outcomes</b></p>           <p><b>7. Candidate debriefing</b></p>  <p><b>8. Reporting &amp; records</b></p>	<p>Control Systems Competency Assessment Tool MN S 43015.</p> <p>These requirements shall be assessed and certified by persons having the requisite assessment qualifications (i.e. Cert IV TAE 40110 or equivalent).</p> <p>Based on the evidence provided in the documentary materials provided and the assessment, the candidate is assessed to be</p> <ul style="list-style-type: none"><li>• Not ready for assessment The candidate was not adequately prepared for the assessment, lacks, prerequisites or requires significant additional training and experience. These deficits should be addressed before re-applying for assessment.</li><li>• Not yet competent The candidate lacks one or more elements to be assessed competent The candidate may be reassessed on the missing elements, as soon as they can be prepared.</li><li>• Not yet competent to work independently, but competent to work under supervision The candidate has demonstrated all prerequisites and skills at a basic level, but has not shown a sufficient level of mastery to be able to perform effectively without guidance. Unrestricted competence can be granted on the basis of a satisfactory supervisor's report, following a period of work under supervision.</li><li>• Competent The candidate has satisfied all requirements.</li></ul> <p>Assessor debriefs the candidate on the outcomes of the assessment, the elements (if any) in which they were found to be not yet competent, and their options for reassessment after completing further development, or appealing the outcome.</p> <p>Assessor notifies candidate and candidate's supervisor by forwarding to each a copy of the Competency Assessment Record Sheet which is part of the Assessment Tool and, if the candidate was assessed competent, a copy of the</p>
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<p><b>9. Reference Documents</b></p>	<p>Record Sheet to the Principal Engineer Signalling Integrity for updating of RG S 41415.</p> <ul style="list-style-type: none"> <li>• ST S 43015 Plan and Direct Inspection and Testing of Signalling Works competency standard</li> <li>• MN S 43015 Plan and Direct Inspection and Testing of Signalling Works competency assessment tool with appropriate question set</li> <li>• SPG0711 – Inspection and Testing of Signalling</li> <li>• MN S 40000 Signalling Safeworking Procedures Manual J</li> <li>• RailSafe Network Rules and Procedures – 'Work on Track' NWT requirements</li> <li>• Sydney Trains and OEM equipment manuals</li> <li>• Sydney Trains Health Assessment Categories of Rail Safety Workers Version 1.3</li> </ul>
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## 2 PR S 43015B Behavioural Competency Assessment (SCP15B)

The behavioural competency assessment process is to be used in conjunction with the Technical competency assessment process for Plan and Direct Inspection and Testing of Signalling Works SCP15A.

## 3 Behavioural Competencies






The behavioural competency requirements for ST S 43015 are as follows:

Competency	Descriptor	Benchmarked Score
Deciding and Initiating Action	Makes prompt, clear decisions which may involve tough choices or considered risks; Takes responsibility for actions, projects and people; Takes initiative, acts with confidence and works under own direction; Initiates and generates activity.	3 or higher
Applying Expertise and Technology	Applies specialist and detailed technical expertise; Develops job knowledge and expertise through continual professional development; Shares expertise and knowledge with others; Uses technology to achieve work objectives; Demonstrates appropriate physical co-ordination and endurance, manual skill, spatial awareness and dexterity; Demonstrates an understanding of different organisational	3 or higher

Analysing	Analyses numerical data, verbal data and all other sources of information; Breaks information into component parts, patterns and relationships; Probes for further information or greater understanding of a problem; Makes rational judgements from the available information and analysis; Produces workable solutions to a range of problems; Demonstrates an understanding of how one issue may be a part of a much larger system.	3 or higher
Planning and Organising	Sets clearly defined objectives; Plans activities and projects well in advance and takes account of possible changing circumstances; Identifies and organises resources needed to accomplish tasks; Monitors performance against deadlines and milestones.	3 or higher
Delivering Results and Meeting Customer Expectations	Focuses on customer needs and satisfaction; Sets high standards for quality and quantity; Monitors and maintains quality and productivity; Works in a systematic, methodical and orderly way; Consistently achieves project goals	3 or higher

## 4 Competency Rating Scale

A five point rating scale is used for the assessment of behavioural competencies.

1	2	3	4	5
				
Significantly lower than required benchmark	Lower than Benchmark	Meets Benchmark	Exceeds Benchmark to be a strength	Significantly exceeds benchmark to be a strength
Not likely to be a strength	Less likely to be a strength	Likely to be a strength	Quite likely to be a strength	Very likely to be a strength

## 5 Assessment Methodology

Assessment in this competency is undertaken using one, or a combination of the following methods

- Candidate completion of Occupational Personality Questionnaire (QPQ). This questionnaire is used throughout the world and has been designed to identify an individual's most likely patterns of behaviour (see the use of OPQ in behavioural assessment background document).
- Behavioural Interview conducted with candidates supervisor
- Behavioural interview conducted with candidate

## 6 Behavioural Assessment Process

### 6.1 Process Stages

The following definitions apply in this document:

- a) Candidate completes the online OPQ.
- b) Normative data is analysed and indicative benchmarks recorded.
- c) Indicators that are not consistent with profile benchmarks are explored further with the candidates' current or recent supervisor and data is evaluated accordingly.
- d) Where inconsistencies still exist, behavioural interview is conducted with the candidate and results evaluated.
- e) Behavioural competencies are rated and assessment process finalised.
- f) If the candidate does not meet the profile benchmarks, a development plan is put in place and the candidate is re-assessed quarterly using supervisor report mechanism.
- g) If the candidate meets the profile benchmarks a Behavioural Competency Assessment report is produced and included in portfolio of evidence.



## 6.2 Behavioural Competencies and corresponding questions for Plan and Direct Inspection and Testing of Signalling Works (ST S 43015)

Competency	Descriptor	Supervisor Questions	Candidate Questions
<b>Deciding and Initiating Action</b>	Makes prompt, clear decisions which may involve tough choices or considered risks; Takes responsibility for actions, projects and people; Takes initiative, acts with confidence and works under own direction; Initiates and generates activity.	Contact ESI Signalling Integrity for OPQ Questions.	Contact ESI Signalling Integrity for OPQ Questions.
<b>Applying Expertise and Technology</b>	Applies specialist and detailed technical expertise; Develops job knowledge and expertise through continual professional development; Shares expertise and knowledge with others; Uses technology to achieve work objectives; Demonstrates appropriate physical co-ordination and endurance, manual skill, spatial awareness and dexterity; Demonstrates an understanding of different organisational departments and functions	Contact ESI Signalling Integrity for OPQ Questions.	Contact ESI Signalling Integrity for OPQ Questions.
<b>Analysing</b>	Analyses numerical data, verbal data and all other sources of information; Breaks information into component parts, patterns and relationships; Probes for further information or greater understanding of a problem; Makes rational judgements from the available information and analysis; Produces workable solutions to a range of problems; Demonstrates an understanding of how one issue may be a part of a much larger system.	Contact ESI Signalling Integrity for OPQ Questions.	Contact ESI Signalling Integrity for OPQ Questions.

<p><b>Planning and Organising</b></p>	<p>Sets clearly defined objectives; Plans activities and projects well in advance and takes account of possible changing circumstances; Identifies and organises resources needed to accomplish tasks; Monitors performance against deadlines and milestones.</p>	<p>Contact ESI Signalling Integrity for OPQ Questions.</p>	<p>Contact ESI Signalling Integrity for OPQ Questions.</p>
<p><b>Delivering Results and Meeting Customer Expectations</b></p>	<p>Focuses on customer needs and satisfaction; Sets high standards for quality and quantity; Monitors and maintains quality and productivity; Works in a systematic, methodical and orderly way; Consistently achieves project goals</p>	<p>Contact ESI Signalling Integrity for OPQ Questions.?</p>	<p>Contact ESI Signalling Integrity for OPQ Questions.</p>

## 7 Behavioural Competency Assessment Report

### Plan and Direct Inspection and Testing of Signalling Works – Behavioural Competency Assessment

Candidate Name: Joe Blogs  
 Report Prepared By: Bee Checker  
 Role: Signal Engineer,  
 Sydney Trains  
 Date: Friday 3<sup>rd</sup> December,

This report is provided as evidence of assessment of the behavioural competency of the candidate to Plan and Direct Inspection and Testing of Signalling Works.

Occupational Personality Questionnaire was completed on 22nd November, 2010 and the outcome of this assessment indicated that the following competencies needed to be validated via a Supervisors report.

#### Behavioural Competencies assessed – Plan and Direct Inspection and Testing of Signalling Works

		Candidate Overall Rating
<b>Deciding and Initiating Action</b>	Makes prompt, clear decisions which may involve tough choices or considered risk; Takes responsibility for actions, projects and people; Takes initiative, acts with confidence and works under own direction; Initiates and generates activity	<b>Exceeds Criteria</b>
<b>Applying Expertise and Technology</b>	Applies specialist and detailed technical expertise; Develops job knowledge and expertise through continual professional development; Shares expertise and knowledge with others; Uses technology to achieve work objectives; Demonstrates appropriate physical co-ordination and endurance, manual skill, spatial awareness and dexterity; Demonstrates an understanding of different organisational departments and functions	<b>Meets criteria</b>
<b>Analysing</b>	Analyses numerical data, verbal data and all other sources of information; Breaks information into component parts, patterns and relationships; Probes for further information or greater understanding of a problem; Makes rational judgements from the available information and analysis; Produces workable solutions to a range of problems; Demonstrates an understanding of how one issue may be a part of a much larger system.	<b>Meets criteria</b>

		<b>Candidate Overall Rating</b>
<b>Planning and Organising</b>	Sets clearly defined objectives; Plans activities and projects well in advance and takes account of possible changing circumstances; Identifies and organises resources needed to accomplish tasks; Monitors performance against deadlines and milestones.	<b>Meets criteria</b>
<b>Delivering Results and Meeting Customer Expectations</b>	Focuses on customer needs and satisfaction; Sets high standards for quality and quantity; Monitors and maintains quality and productivity; Works in a systematic, methodical and orderly way; Consistently achieves project goals	<b>Meets criteria</b>

Supervisors follow up report was conducted with Tee Rex (Commissioning Engineer, Sulphide Junction Project) on Tuesday 30th November to explore the competency of Planning and Organising Mr Rex provided examples that he had observed of Joe Blogs planning and organising resources required to undertake work tasks and being able to organise his time to complete work.

This competency has been assessed as meeting criteria.