

Safety Critical Communications

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1 Purpose

The purpose of this document is to describe the Sydney Trains organisational procedure for monitoring, managing and improving Safety Critical Communications (SCC) across the organisation.

2 Scope

This document is applicable to Rail Safety Workers conducting safety critical communications across the network, as well as individuals responsible for conducting assurance and training activities for SCC.

This document provides high level policy and standards for Sydney Trains SCC.

How SCC is implemented in individual branches is covered in referenced branch-level SCC Operating Procedures.

3 Safety Critical Communications (SCC) Governance

3.1 SCC Framework

The Sydney Trains SCC Framework provides a governance structure for monitoring, managing and improving safety critical communications in an effective and consistent manner across the organisation. The framework contains various key elements, such as roles and responsibilities, procedures, people, process, technology, risk management, monitoring and reporting and stakeholder interface.

Refer to the Sydney Trains SCC Framework document for further details.

3.2 Roles and Responsibilities

Sydney Trains is responsible for:

- identifying activities that involve communications which affect the safe and efficient operation of the railway
- developing and implementing procedures and instructions to enable Qualified Workers to comply with the protocols and requirements of this Organisational Procedure
- ensuring that workers undertaking safety-critical communications are competent to do so
- monitoring communications to make sure that they meet the requirements of this Organisational Procedure
- taking action to manage non-compliance with communication protocols.

All personnel engaged in rail operations and Safeworking hold specific roles and responsibilities under this framework:

- **Rail Safety Workers who are Safeworking qualified:** Must learn and adhere to communication protocols and behavioural standards.

- **Lead Communicator:** As per Sydney Trains procedures, the lead communicator controls the flow of information, ensuring clear understanding and protocol compliance.
- **Assessors:** Responsible for conducting audio assessments of Rail Safety Workers and providing feedback to Line Managers/Rail Safety Coaches/Trainers.
- **Line Managers:** Responsible for monitoring communication practices, providing necessary resources and training, and addressing any issues related to communication adherence.
- **Rail Safety Coaches and Trainers:** Ensure team compliance with protocols, encourage open communication about issues, and provide coaching.

Refer to the [Responsible, Accountable, Consulted and Informed \(RACI\) document](#) for details.

3.3 Policies, Procedures and Standards

Regulations and Industry Guidance:

- [Rail Safety National Law](#)
- [Rail Safety National Law National Regulation](#)
- [RISSB Safety Critical Communications Guideline](#)
- [RISSB Safety Critical Communications Code of Practice](#)

Sydney Trains Framework:

- GUI36 Safety Critical Communications Framework

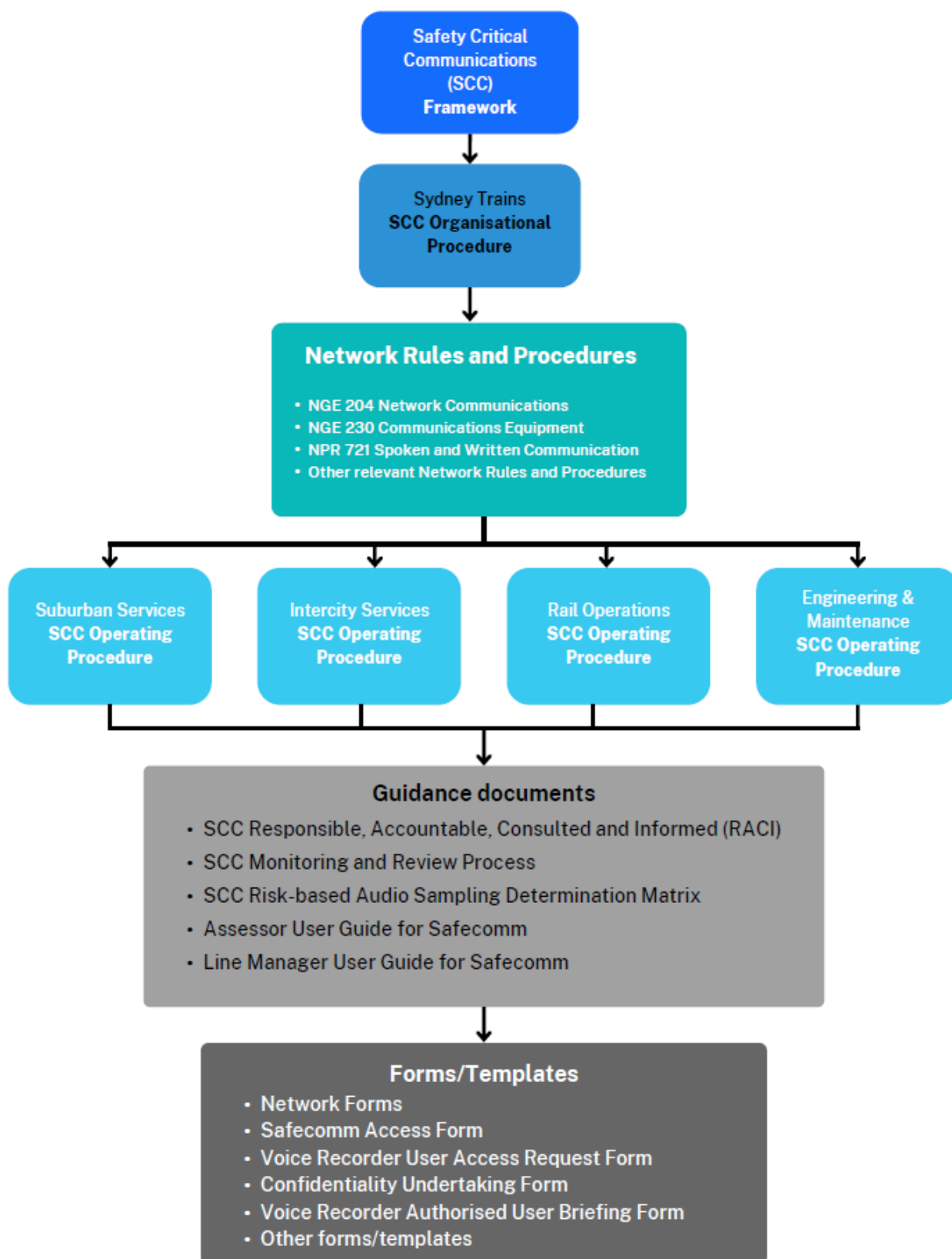
Network Rules and Procedures:

- [NGE 204 Network communication](#)
- [NGE 230 Communications equipment](#)
- [NPR 721 Spoken and written communication](#)
- [Relevant Sydney Trains Network Rules, Procedures and Forms](#)

Sydney Trains Procedures:

- PRO58 Sydney Trains SCC Organisational Procedure
- Suburban Services SCC Operating Procedure
- Intercity Services SCC Operating Procedure
- Rail Operations SCC Operating Procedure
- Engineering and Maintenance SCC Operating Procedure

Figure 1. SCC Document Suite



3.4 SCC Advisory Group

Sydney Trains will establish an SCC Advisory Group to review matters and trends relating to Safety Critical Communications on a quarterly basis.

The Sydney Trains SCC Advisory Group must consist of members representing:

- Rail Operations
- Suburban Services
- Intercity Services
- Engineering and Maintenance
- Safety, Environment, Quality & Risk (SEQR)
- Learning and Development
- Network Rules and Projects
- Business units with an Operating Procedure for SCC

4 Communication Protocols

Standardised communication protocols ensure that all messages are clearly understood and reduce the likelihood of errors in communication.

Workers undertaking safety critical communications in the Sydney Trains Network must adhere to the requirements and protocols contained in the Sydney Trains Network Rules and Network Procedures:

- NGE 204 Network communication
- NGE 230 Communications equipment
- NPR 721 Spoken and written communication

4.1 Types of SCC

Safety-critical communication is any communication, spoken or written, that if not delivered, or incorrectly delivered, or not delivered promptly, there is reasonable likelihood of a safety incident occurring.

Safety-critical communication includes, but is not limited to, communication for:

- work in the rail corridor,
- rail traffic movements,
- conditions affecting the safe operation of the Network.

There are three main types of SCC:

- Spoken communications
- Written communications
- Text and applications based communications

4.1.1 Spoken communications

Spoken communications include, but are not limited to communications:

- by landline telephone
- by mobile phone
- by two-way radio
- by signal-post telephone
- by in-cab train radios
- face to face.

4.1.2 Written communications

Written communications are made using paper or electronic media. These include but are not limited to:

- Network Forms, authorities and records
- Forms for the maintenance, commissioning or withdrawal of rollingstock or infrastructure
- Written work instructions or directions

Sydney Trains operating branches must have procedures and programs in place to make sure that workers undertaking written communications in the Sydney Trains Network adhere to the requirements in the following Network Rules and Procedures:

- NGE 204 Network communication
- NPR 721 Spoken and written communication

4.1.3 Text and applications-based communications

Text and applications-based communications refer to communications received through electronic means, such as text messages, software applications, and any other means of electronically transmitting text.

Users of text and applications-based safety critical communications must make sure that:

- Messages are concise, unambiguous, and adhere to approved formats
- All messages are acknowledged and confirmed as being correctly received and understood
- Communications are recorded and retained for accountability and review
- Only authorised devices that have facility to record message acknowledgement are used for safety critical communications.

Where electronic communications and its integrity are unreliable, or confirmation cannot be clearly received, all parties shall revert to spoken and written communications.

4.2 Spoken Communication Protocols

4.2.1 General

Communication in the Network must:

- be in English,
- be clear, brief and unambiguous,
- be relevant to the task at hand,
- agreed to its meaning before being acted upon,
- not include slang, or jargon,
- use standard terms, phrases and abbreviations where appropriate,
- be directed to the relevant person who can act upon the communication,
- represent the good practice communication behaviours identified in this document.

Safeworking communication must use:

- the 24-hour clock to give the time of day, and
- the phonetic alphabet and spoken numbers to identify:
 - train numbers, or
 - track vehicle numbers, or
 - signal numbers.

Communication equipment used for rail traffic operation or work on track must be tested and checked for its intended operation.

4.2.2 Opening the Conversation

Senders and receivers of communications must start the communication with identification of the receiver first, and the sender second.

Communications from an attended location must include the sender's Safeworking designation and location.

Communications from rail traffic must include the sender's Safeworking designation and train number or track vehicle number.

Communications from a worksite must include the sender's:

- name, and
- Safeworking designation, and
- location.

4.2.3 Confirmation of Communication

The receiver must confirm the content of a message by repeating the message back to the sender, if the communication is about:

- a Condition Affecting the Network (CAN), or
- a Proceed Authority, or
- an instruction not to proceed, or
- a work on track authority, or
- a work on track method, or
- work on track Train Running Information, or
- Special working.

As far as practicable once commenced, communication must be completed without interruption.

If communication is interrupted, the sender must restart the communication:

- if information has changed, from the beginning, repeating items already sent, or
- from the next item that has not been confirmed by the receiver.

If the meaning of a spoken communication is not understood:

- the receiver must ask that it be repeated, or
- if necessary, the sender and the receiver must use the phonetic alphabet and spoken numbers to clarify and confirm the message.

The receiver must try again as soon as practicable, or arrange alternative means to communicate with the sender, if:

- the receiver cannot understand the message, or
- the sender cannot hear or understand the reply.

The receiver must not act on the communication until the sender confirms that the message has been repeated correctly.

4.2.4 Relaying Communications

If it is not possible for a sender to communicate directly with an intended receiver, Qualified Workers may relay the content.

The content of the communication must be relayed exactly as received, and using the protocols in NGE 204 Network communication and NPR 721 Spoken and written communication.

4.2.5 Lead Communicator

During spoken communications, one person shall take responsibility to lead the communication.

The lead communicator has responsibility to control the exchange of information to make sure all parties:

- clearly understand the information exchanged
- do not act on the information until confirmed that it is clearly understood
- comply with communication protocols and apply good practice communication behaviours
- communicate in a calm and respectful manner

The lead communicator on the Sydney Trains Network will be the:

- Electrical Systems Operator (ESO), or
- the Network Controller (NC), when not communicating with the ESO, or
- the Signaller, when not communicating with the NC or ESO.

In all other instances, the lead communicator will be the person who initiates the communication.

4.2.6 Recording Spoken Communications

If spoken communications recording equipment is provided, it must be used to record communications.

Refer to the 'Record Management' section for retention period requirements.

4.3 Communication Behavioural Standards

Workers who undertake communications in the Sydney Trains Network must exercise good practice communication behaviours to meet the performance expectations of this standard.

The following table contains good and poor practice behaviours, arranged by key communication element.

They are intended to support the identification of desirable communication behaviours and provide a model by which communication behaviours can be consistently monitored.

Key communication element	Communication behaviours	
	Good practice	Poor practice
Opening a conversation	Identifies themselves, and their role, and location if required, and confirms who they are talking to.	Does not fully or accurately identify themselves or confirm who they are talking to
	Identifies the purpose of the conversation early on	Does not clearly establish the purpose of the conversation
Structuring communications	Provides key information in a planned and logical order	Does not give information in the right order, or overloads the receiver
	Repeats back critical information	Does not repeat back critical information
	Leads and refocuses the conversation if it goes off topic	Gets distracted and allows the conversation to go off topic
	Asks relevant questions to confirm a shared understanding has been reached	Assumes shared understanding without confirming or questioning
	Restarts a communication from the beginning, or last confirmed step, if it is interrupted	Continues after an interruption, assuming the earlier part was correctly understood
Speaking professionally	Controls tempo using short, simple sentences	Uses inappropriate tempo, speaking too fast or too slowly
	Uses clear descriptors and standard spoken terms including the phonetic alphabet	Speaks casually or uses slang when giving or repeating back information
	Speaks confidently and calmly, and treats others with respect	Is offensive, aggressive, or obstructive
	Confirms accurate read back and repeats a message if there are errors	Does not correct inaccurate read back
Ending conversation	Makes sure that other parties have no further questions before ending the communication	Ends the conversation abruptly without assurance that the communication is complete and understood

4.4 Emergency Communication Protocols

An emergency is an incident requiring urgent action. The incident might involve death or serious injury, health or safety effects, significant damage to property or infrastructure, significant train service disruption, or environmental impact.

Emergency communications must be:

- Given priority, and
- Answered immediately.

Emergency open-channel radio protocols:

Qualified Worker

1. Say: “Emergency, emergency, emergency, this is (your identification)”.
2. Give brief details about the emergency.
3. If there is no immediate answer, pause.
4. Repeat Step 1, and Step 2 if necessary, until you are answered.
5. When a Receiver answers, give your location and the emergency message.
6. Exchange necessary information and instructions.



Note: Users other than the Sender and intended Receiver must immediately cease transmission.

Emergency discrete-channel protocols:

For discrete-channel communication (e.g. VCS, mobile phone), the urgency of a situation can be conveyed by saying “This is an emergency”, followed by your identification, location and the emergency message.

For Digital Train Radio System (DTRS) and In-cab Communication Equipment (ICE) radio:

1. Make an emergency call.
2. When the Receiver answers, give your identification, location and the emergency message.
3. Exchange necessary information and instructions.

If you’re unsure of the difference between open-channel and discrete-channel, using the standard term “Emergency, emergency, emergency” as the recommended best practice to alert others to an urgent situation.



Note: If an emergency message is transmitted during a group call on a phone system such as a VCS, all other users on the channel must immediately cease transmission.

It is important to remember that people reporting an emergency may be highly agitated, panicked or even aggressive. It is important to remain calm and attempt to calm the informant to ensure correct information is obtained and the accurate arrangements are made and dispatched to the correct location.

4.5 Written Communication Protocols

Sydney Trains Qualified Workers compiling Network Forms, authorities and records must:

- record numbers in numerals, not words, for example using “12” instead of “twelve”, and
- use only authorised abbreviations, and
- unless completing an electronic form:
 - write clearly in ink, and
 - draw a single line through errors, and if required print the corrections above them, and
 - initial corrections in the margin beside the correction.

If a form has items where Qualified Workers are required to provide their name, Safeworking designation, or location details, Qualified Workers must provide their details in full when requested.

If Network Forms include items that have a numbered box before them, Qualified Workers must:

- tick the numbered box if it applies, and complete the item, or
- place a cross in the numbered box if the item does not apply.

Qualified Workers must complete all other items on the form.

5 People, Training and Development

5.1 Recruitment and Selection Process

Sydney Trains roles involving Safety Critical Communications must have SCC-based candidate assessment established as part of candidate recruitment and selection.

Candidates for Sydney Trains roles involving Safety Critical Communications must meet the following criteria:

- Ability to read, write, listen, and speak clearly
- Capacity to effectively share information and instructions
- Understanding and use of plain English in written and verbal communication.

The recruitment process must have candidates demonstrate their SCC ability by assessment of verbal and written communication skills.

The level of proficiency of the above criteria and SCC ability is determined by the role's branch and must be outlined in the associated branch-level Operating Procedure.

5.2 SCC Training

5.2.1 SCC Initial Training

Rail Safety Workers (Safeworking qualified) and Safecomm Assessors must complete the SCC Initial Training SCC01 Safety Critical Communications as part of initial employment, induction or orientation training.

In addition to the training requirements of SCC01 Safety Critical Communications, initial training of qualified Rail Safety Workers must include:

- Role-specific Safety Critical Communications protocols, which must be outlined in branch Operating Procedures
- Practical exercises such as role play or simulation of normal operational scenarios and emergency scenarios
- Operating role-specific communication equipment correctly
- Review and examination of Sydney Trains case studies of past incidents where poor SCC was the root cause or a key contributing factor of the incident
- Review and examination of Sydney Trains case studies of SCC best practice.

5.2.2 SCC Refresher Training

Rail Safety Workers (Safeworking qualified) and Safecomm Assessors must complete SCC Refresher Training at least every 36 months.

Sydney Trains Enterprise SCC Refresher Training is available online. However, branches may choose to produce a contextualised SCC Refresher Training course for their own operational needs and Rail Safety Workers.

Branch produced SCC Refresher Training must at a minimum cover the following performance criteria.

Element	Performance Criteria At the end of training the person must be able to:	Reference
Use approved communication procedures	a) communicate orally or in written form in a manner that: • is clear, brief and unambiguous • is relevant to the task at hand • is agreed as to its meaning before being acted upon • uses the 24-hour clock to refer to the time of day • uses the phonetic alphabet and spoken numbers to identify train numbers, track vehicle numbers and signal numbers b) confirm communication with the sender at the appropriate time c) act on the communication at the appropriate time d) test and check communication equipment prior to use e) follow the correct protocols for: • emergency communications • spoken communication • written communication f) follow the correct procedure to complete and keep Safeworking forms and records	NGE 204 NPR 721

Use spoken communication equipment correctly	a) identify and use the correct communication system at the appropriate time b) check the operation of the spoken communication equipment at the appropriate time	NGE 230
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SCC Refresher can be delivered face-to-face, by e-learning or other format as part of the branch-level refresher training program (e.g. Safety Refresher training, Continuation Training, etc).

If a staff member lapses in meeting the 36-month SCC refresher requirement, the Branch must schedule the refresher training as soon as possible and notify relevant stakeholders, if applicable.

SCC refresher training should be reviewed periodically to ensure training content is up to date and relevant, and SCC assessment data and trends are considered.

5.3 Coaching and Development

If non-compliance or areas of improvement are identified from the SCC audio assessments, Rail Safety Workers should receive appropriate coaching, development or re-training activities to ensure they fully understand the SCC protocols and requirements.

These coaching, development or re-training activities may be provided by line managers, coaches, trainers, assessors or relevant qualified staff.

5.4 Repeat non-compliances

The following guidelines apply to managing repeat non-compliances in audio assessments:

1. First and Second Non-compliance:

If an individual's audio assessment is found to be non-compliant for the first or second time, the Line Manager or delegate (e.g. Rail Safety Coach, Trainer) must intervene to provide appropriate coaching and development. This includes ensuring the individual fully understands SCC protocols and requirements.

2. Third Non-compliance (same issue):

If non-compliance occurs a third time for the same identified issue, the Line Manager should collaborate with the trainer/coach to review the gap analysis with the employee. If necessary, a recertification in SCC should be arranged. Depending on the severity of the non-compliance, the Line Manager may request trainer intervention and initiate SCC recertification at any time.

3. Fourth Non-compliance (same issue after intervention):

If a fourth instance of non-compliance occurs for the same identified issue following Line Manager and/or trainer/coach intervention, the Line Manager must consult with the People & Culture team to determine the appropriate next steps (e.g. Performance Improvement Plan).

5.5 Education and Promotion

The following personnel must lead and model SCC behaviours and play a supportive role in raising awareness and promoting safety critical communications:

- Safety, compliance and assurance personnel,
- Rail Safety Coach,
- Trainer/Assessor,
- Line Manager,
- Learning and Development/Capability and Learning personnel.

These SCC-related educational and promotion initiatives include, but are not limited to:

- Safety Briefing/Advice/Alert,
- General Instructions,
- Team meeting/Toolbox topics,
- Workshops,
- Safety Critical Communications Education and Promotion Campaign.

6 Monitoring, Auditing and Assurance Process

6.1 Process Flow

Sydney Trains branches must have a documented process in place to monitor and review SCC.

The SCC monitoring and review process must ensure that:

- the monitoring of communications is risk-based, with a focus on communications identified as safety-critical,
- conducted at time intervals relevant to the risks associated with the Directorate's or Organisation's activities,
- that the sample sizes of monitored communications are statistically representative,
- a structured monitoring tool is used to monitor and review the communications,
- if deficiencies in performance are found, improvement measures and action plans are put in place,
- feedback processes are in place to highlight good communications,
- results are made available to the appropriate areas within Sydney Trains upon request, for the purposes of performance assessment, incident investigation or data and trend analysis

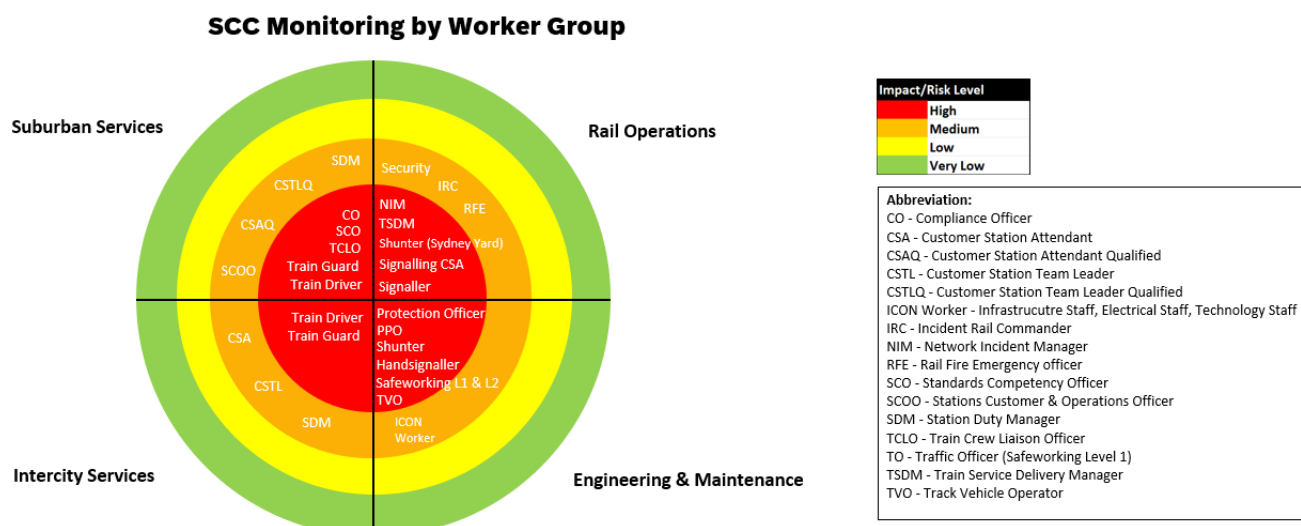


Refer to the [Appendix A1 'SCC Monitoring and Review Process'](#) for further details.

6.2 Audit Plan and Scope

The sample sizes of monitored communications must be statistically representative, using a large enough sample to achieve an appropriate confidence level of SCC monitoring. Additionally, the sample should be selected in a way that accurately reflects the population (e.g. all relevant Safeworking qualified workers).

The minimum sample size is 4% of the number of Safeworking qualified workers, and it should be established as the monthly target of audio assessments by all branches if resources allow. The sample size should include the following Safeworking qualified workers if applicable.



The risk or impact level (Red - High, Orange - Medium, Yellow - Low or Green - Very Low) reflects the likelihood and consequences of a worker being involved in an incident, based on the critical nature of their role in performing safety critical communications. If these communications are not delivered, are delivered incorrectly, or are delayed, there is reasonable likelihood of a safety incident occurring.

The following table includes the audit plan, scope and monthly target (sample size) for all assurance functions from various branches.

Branch	Division	Worker Group	Audit Plan	Audit Scope	Monthly Target
Suburban Services	Train Crewing, Compliance, Investigation & Assurance	Train Driver, Train Guard, TCLO, Standards Competency Officer, Compliance Officer	Audio Assessments	Spoken communication	120 audio assessments
	Service Experience (SCOO)	SDM, CSTLQ, CSAQ, SCOO	Audio Assessments	Spoken communication	20 audio assessments
Intercity Services	Compliance, Standards & Enablement	Train Driver, Train Guard, Station Staff	Audio Assessments	Spoken communication	40 audio assessments
Rail Operations	Assurance	Signaller, TSDM, NIM, IRC, RFE, Security Operator, Signalling Station Staff, Shunters Sydney Yard	- Audio Assessments - Compliance Inspections on written communications	- Spoken communication - Written Communication	100 audio assessments 2 compliance inspections
Engineering & Maintenance	SEQR Rail Corridor Safety	Protection Officer	109 Infield assessments (including audio assessments) 11 Audit interactions as per audit schedule	- Spoken communication - Written Communication	109 audio assessments

	ICON Corridor Safety	Protection Officer, Handsignaller, Track Vehicle Operator, Safeworking Level 1	• Audio Assessments	• Spoken communication • Written Communication	• 80 audio assessments
	ICON Duty Manager	ICON Infrastructure staff, Electrical staff, Technology staff	• Audio Assessments	• Spoken communication	• 10 audio assessments
	Possession Management Centres	Possession Protection Officer, Safetyworking Level 2	• Audio Assessments	• Spoken communication	• 2 audio assessments

The assurance process should cover the following types of SCC if possible:

- Spoken communications,
- Written communications, and
- Text and application-based communications (if applicable).

The SCC audit plan, scope and/or monthly target may vary depending on identified risks, results from assessments, resources or business needs, with written approval from the Head of Business Branch in consultation with the Head of SEQR.

6.3 Risk-based Methodology

Sydney Trains has established a risk-based methodology for monitoring and sampling audio communications that have been identified as safety-critical.

It targets lagging and leading indicators associated with Sydney Trains network hazards where if safety critical communications protocols are not properly delivered, there is a reasonable likelihood of a safety incident occurring.

When selecting audio samples, the following list of lagging indicators and leading indicators should be considered to ensure the monitoring of safety critical communication is risk-based.

Lagging Indicators (Post-incident - Reactive)	Risk Level
Emergency Communication	
Fatality (e.g. public, such as self-harm)	A
Fatality (e.g. worker/contractor)	B
Near Miss	B
Derailment	B
Collision (Running Line / Level Crossing / Within a Yard/Possession)	B
Fire	B
Other Emergency Communication	B
Incident Communication	
SPAD / Authority Exceeded / RIFOD	B
Person on Track - Employee/Contractor/Passenger (e.g. Passenger fell on track, Worker)	B
Person on Track - Trespasser	B
Train Doors were Opened (off the platform / wrong side of platform)	B
CAN Warning	B
Level Crossing (especially if there is a failure under CAN warning)	B
Safeworking Breach (Category A-C)	B
Safeworking Breach (Category D-F)	B

Leading Indicators (Pre-incident - Proactive)	Risk Level
Work on Track - LPA	B
Work on Track - ASB	B
Work on Track - TOA	B
Work on Track - TWA	B
Work on Track - SKS	B
Work on Track - Lookout Working	B
Work on Track - NTR432	B
Manual Block Working	B
Pilot Staff Working	B
Shunting/Train Movement	B
1500V Supply Removed/Restored	B
Workers with ≥ 2 Incidents (Safeworking breaches) over the past 12 months	B
Workers with ≥ 2 Non-compliant SCC assessments over the past 12 months (Subject to review by Line Manager, e.g. non-compliance pattern)	B
OSP24 Retrieving Items from the Track (Option 3 Only)	B
Creating a Safe Place (standing train protection)	B
Newly Qualified Worker at 6-month/12-month	C
Train Running Information	D
General Communication	D

For each lagging/leading indicator, the business and/or assurance function should decide whether the SCC assessment is 'mandatory', 'recommended', 'optional' or 'not applicable', taking into account various factors, including but not limited to:

- the identified risks,
- historical incident and investigation data,
- previous audio assessment results,
- network performance data,

- business needs,
- available resources,
- Type of SCC,
- Relevant worker group(s) involved in the conversation,
- whether the communications are recorded.

‘Mandatory’ means an audio assessment must be conducted for the identified worker group if relevant.

‘Recommended’ means it is considered best practice to conduct an audio assessment for the identified worker group if possible. It is advised, but not mandatory.

‘Optional’ means the decision on whether to conduct an audio assessment is entirely at the discretion of the business or assurance function.

‘N/A’ means the leading or lagging indicator is not applicable to the identified worker group, or the audio communication is not recorded or available for assessment.

Refer to the [SCC Risk-based Audio Sampling Determination Matrix](#) for further details.

6.4 Monitoring, Auditing and Assessment

Audio recordings can be obtained from the voice recording systems to support the monitoring and review of safety critical communications across the Sydney Trains network.

Once the relevant audio recordings are retrieved and downloaded, the auditor/assessor can proceed with assessing safety critical communication practices using SAFECOMM, which is the Sydney Trains SCC assessment tool.

The appointed auditor/assessor should be an experienced and competent personnel who have knowledge of the safety critical communications protocols (both technical and non-technical components) and relevant Network Rules and Procedures.

The SAFECOMM assessment tool should focus on the technical and non-technical aspects of effective communication, and as a minimum, consider looking at such aspects as:

- Completeness and accuracy of communications;
- Spoken communication is clear, brief and unambiguous;
- If messages are ‘read-back’;
- If misunderstandings are identified and effectively recovered from;
- where necessary, clarification about a safety critical communication is sought;
- the correct use of phonetic alphabet, spoken numbers and safety critical communications protocols;
- the formality and professionalism of the safety critical communications; and
- for written communications, that the writing is legible, printed, and correct.

The SCC assessment should also seek to identify areas requiring improvement for individuals, common issues across the board, as well as excellent communication for individuals and across the board.



Note: It is important that an auditor/assessor does not focus entirely on compliance with policies and procedures when conducting SCC assessments as this can develop into a compliance culture within the organisation. A compliance culture can result in people using safety critical communications focusing only on compliance with agreed processes (e.g., use of phonetic alphabet), leading to a lack of focus on the transmission of accurate and factual information.

SCC assessments should review the quality of the information being transmitted, as well as the protocols used to transmit that information.

Reviews of safety critical communications performance may also be considered following any reports of non-compliances with standard protocols, incidents, Safeworking breaches or ad-hoc requests identifying shortcomings in the safety critical communication practices.

6.5 Action Management

Upon completion of the SCC assessment, the assigned person (e.g. Line Manager, Rail Safety Coach, managers or delegated person) should review the SCC assessment outcome and share the positive feedback and/or areas for improvement with the employee. The review should identify correct and incorrect protocols with the aim to improve the safety critical communications.

Compliant Results:

If the SCC assessment is compliant, the assigned person should provide positive feedback to the employee, acknowledging their good communications. Once completed, the assigned person is required to close the assessment in Safecomm within 14 days from the date of assessment completion.

Non-compliant / Area for Improvement Results:

If the SCC assessment is compliant or has an area for improvement, the assigned person should undertake appropriate action with the employee to address non-compliances/improvement items and advise how to improve their safety critical communications.

These actions may include, but are not limited to:

- Verbally Coaching
- Formally Coaching
- Training/Re-training
- Formal Counselling
- Performance Improvement Plan
- Referral (e.g. Referral to an external party or contractor)

Once completed, the assigned person is required to close the assessment in Safecomm within 14 days from the date of assessment completion.

6.6 Coordination with Internal and External Stakeholders

6.6.1 Reporting between branch assurance functions

The branch assurance units are responsible for identifying communication issues involving their Rail Safety Workers and notifying the relevant assurance function if poor communications or area for improvement are attributable to personnel from other operational areas or business units. They must provide this information and the associated audio recordings to the relevant assurance function or business unit for review and action.

A record of this referral must be maintained by the assessor's business unit.

6.6.2 Coordination with External Stakeholders

If an SCC assessment conducted by Sydney Trains identified a non-compliance or area for improvement attributable to an external party/contractor (e.g. contracted Protection Officer, Freight Operator, etc), this information should be referred to the relevant Level 4 Manager or delegate for forwarding to the relevant parties for review and action.

If audio recordings are requested by an external party, the Sydney Trains Confidentiality Form must be signed by the external party and written approval from the relevant Sydney Trains Level 4 Manager must be obtained before releasing the recordings.

Audio recordings should have a maximum expiry date of 30 days.

All records associated with this referral must be maintained by the assessor's business unit.

6.7 Reporting

The Sydney Trains Key Performance Indicators (KPIs) and targets for SCC audio assessments are:

SCC Key Performance Indicators	Monthly Target	Notes
Monthly completion rate of SCC audio assessment (by Assessor)	100%	Refer to Section 6 for the monthly target for each business unit.
SCC Technical Assessment Item Compliance Score (by Assessee)	> 80%	Good practice is 90%, but the minimum requirement is 80%. Branch can increase their compliance score KPI in accordance with internal process.
SCC Non-Technical Assessment Item Compliance Score (by Assessee)	> 80%	Good practice is 90%, but the minimum requirement is 80%. Branch can increase their compliance score KPI in accordance with internal process.
Number of overdue Safecomm actions (by the assigned Line Manager)	< 5%	

Here is the formula for calculating technical or non-technical compliance score:

- Technical Compliance Score = Number of technical compliance items / Total number of technical items
- Non-Technical Compliance Score = Number of non-technical compliance items / Total number of non-technical items

Additional reporting metrics may include:

- Monthly completion rate by branch/business unit
- SCC compliance score by item level (Both Technical and Non-technical scores)
- SCC compliance score by branch/business unit (if possible)
- Number of overdue actions by branch/business unit
- Top 10 non-compliance items or areas of improvement (Both Technical and Non-technical)
- Top 10 good practices (Both Technical and Non-technical)
- SCC compliance score by assessee role
- Number of assessments by assessee role
- SCC compliance score by assessment type
- Number of assessments by assessment type.

SCC assessment data is imported to DOMO for reporting and trend analysis.

SCC data and trends should be reviewed by the relevant assurance function and/or leadership team at least monthly to identify good communications and areas for improvement.

An SCC Advisory Group will be established and convene quarterly to review the SCC data and trends across the different assurance teams and identify systemic issues or common areas requiring improvement.

If the SCC performance is below the established target, detailed analysis should be conducted to understand the causes and contributing factors to poor compliance, and corrective or preventative actions should be taken to improve the compliance rate.

SCC KPIs and targets should be reviewed regularly as part of the SCC Framework review process.

6.8 Continuous Improvement

Various continuous improvement initiatives may be identified and implemented based on the reporting, data insights and trend analysis of SCC assessment results. These initiatives may include improvement or changes to systems, procedures, process, training, coaching or educational materials.

Here are some examples of continuous improvement initiatives:

- Provide coaching or interactions with Qualified Workers to raise awareness of common non-compliance issues
- Review and update the SCC Refresher training based on periodic review of common issues and focus areas
- Changes and addition to the Safecomm system
- Changes to the SCC Organisational Procedure or Operating Procedures
- Advice/Briefing/Notice related to good or poor communications
- SCC awareness and/or promotion Campaign
- SCC Advisory Group will also monitor and SCC data and trends to determine continuous improvement initiatives.

7 System and Technology

7.1 Safety Critical Communication Equipment

Equipment used for Safety Critical Communications should be:

- Routinely tested;
- Operated correctly in accordance with the manufacturer's instructions e.g. environmental aspects such as temperature/humidity parameters, vibration etc.;
- Adequately maintained (where applicable) in accordance with the manufacturer's instructions;
- Where applicable, ensure a full set of backup batteries are available on charge or spare non-rechargeable batteries are available; and
- Checked and tested for its intended operation at the commencement of each shift.

Here are some examples of Safety Critical Communications Equipment:

- Digital Train Radio System (DTRS)
- Government Radio Network (GRN)
- Two-way Radios
- Mobile Phones.

If spoken communication recording equipment is provided, it must be used to record Network communications.

If Network Control communications equipment is defective, the Network Controller must:

- tell Maintenance Representatives about the faulty equipment, and
- establish alternative communication methods.

If a train's communications equipment becomes defective, Drivers must act in accordance with NTR 410 Defective equipment.

Refer to NGE 230 Communications Equipment for further details.

7.2 Voice Recording Systems

Sydney Trains utilise the following voice recording systems to enable recording and retention of safety critical communications in the network:

- Digital Train Radio System (DTRS) / Wingcon
- NICE Inform
- Mitel.

System suitability should consider the following factors:

- the type of media recorded to;
- duration of retention, particularly given aspects such as training, audits, incidents etc.;
- accessibility of the recordings i.e., security and disclosure risks;
- what will be recorded and where i.e., radio only, telephones, Train Control etc.;
- any 'non-recorded' devices that may be considered for use in safety critical communications;

- any potential 'privacy' concerns and brevity of conversations;
- any regulatory requirements for the recording and storage of safety critical communications.

The Head of Engineering and Maintenance is accountable for the management and maintenance of voice recording systems.

Changes to the voice recording systems must be communicated to relevant stakeholders (e.g. SEQR, Business units, assurance functions, SCC Advisory Group).

7.3 Auditing and Assessment Systems

SafeComm, is the Sydney Trains web-based system which enables the monitoring and review of audio from a safety critical communication against a set of technical and non-technical standards.

SafeComm supports the assessment of audio from safety critical communications between Rail Safety Workers (e.g. between Driver and Signaller, between Protection and Signaller, between Signaller and Network Controller) involved in the activities.

It allows assessors to complete a scripted assessment of an audio communication and provide feedback to the Rail Safety Workers involved in the communication. The feedback provided highlights good communications and flags any areas for improvement and action.

Written communications may be audited or assessed using a suitable assessment tool decided by the branch (e.g. Safety Culture iAuditor application, Rail Safety Coaches Application, etc).

7.4 Reporting System

SCC assessment results will be collated and reported via the Sydney Trains agency-level and branch-level SCC DOMO Dashboards for data and trend analysis.

The following information should be reported monthly via the DOMO Dashboard:

- SCC Key Performance Indicators (KPIs)/Targets;
- Number of SCC assessments completed per month;
- SCC compliance and non-compliance results;
- Action completion status (e.g. number of open/overdue actions);
- Poor communications/Areas for Improvement; and
- Good communications.

The Head of Reporting, Analytics & Insights is responsible for developing and maintaining the Sydney Trains agency-level and branch-level SCC DOMO Dashboards.

Relevant assurance functions are responsible for generating, collating and preparing the branch-level SCC performance report for their leadership team at least monthly.

The SCC Advisory Group is responsible for collating and reviewing the Sydney Trains agency-level SCC performance report at least quarterly.

8 Record Management

8.1 Retention Period Requirements

Verbal Communications (e.g. Audio recordings):

1. Original audio recordings must be retained for a minimum of 12 months in the voice recording system. Users will be able to search audio files up to 12 months recordings.
2. Audio recordings supporting the monitoring of train operations and the management of incidents must be retained for a minimum of seven (7) years. This can be retrieved from the Voice Recording System Archive Server upon request from the Operations Technology Maintenance Engineers.
3. Audio recordings downloaded by the Investigation/Assurance/Business functions and relating to incident investigations should be retained for a minimum of 10 years with Sydney Trains approved/authorised means of storage outside the Voice Recording System (e.g. RM8, SharePoint site).

Safecomm Audio Assessment Record:

- Audio assessment files and audio clips from the Safecomm system must be kept for at least 7 years.

Written Communications:

- Records of written communications must be kept for at least 90 days. These records may include network forms, track possession authorities, train control diagrams, etc.
- Train register books and panel diaries from Signal Box Operations must be kept for a minimum of 7 years.

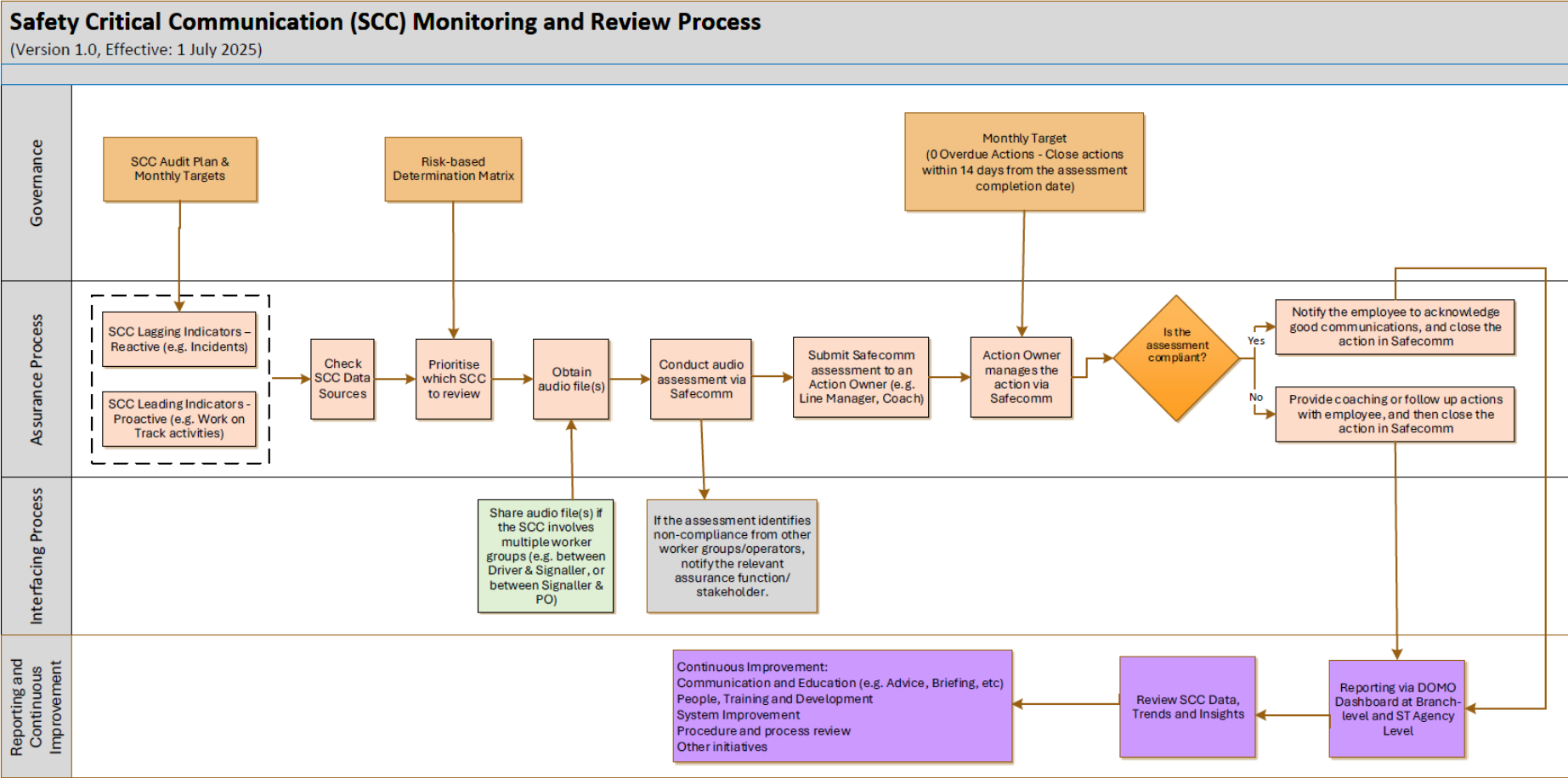
Written Communication Inspection or Audit Record:

- Inspection and/or audit records on written communications must be kept for at least 6 years.

Refer to SMS-09-SP-3021 Records Management Procedure for the regulatory requirements, policies and procedures related to the creation, handling, storage, retention, and disposal of safety records.

9 Appendices

A1. SCC Monitoring and Review Process Flowchart



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10 Acronyms

Definitions	
SCC	Safety Critical Communications
RACI	Responsible, Accountable, Consulted, and Informed
RISSB	Rail Industry Safety and Standards Board
SEQR	Safety, Environment, Quality and Risk
VCS	Vigilance Control System
DTRS	Digital Train Radio System
GRN	Government Radio Network
ICE	In-cab Communication Equipment
ICON	Infrastructure Control
SPAD	Signal Passed At Danger
RIFOD	Returned In Face Of Driver
CAN	Condition Affecting the Network
LPA	Local Possession Authority
TWA	Track Work Authority
TOA	Track Occupancy Authority
ASB	Absolute Signal Blocking
SKS	Signal Key Switch
Roles	
ESO	Electric Systems Operator
NC	Network Controller
CA	Cleaning Attendant
CIC	Cleaner in Charge
CSA	Customer Service Attendant
CSTL	Customer Station Team Leader
IRC	Incident Rail Commander
NIM	Network Incident Manager
RFE	Rail Fire Emergency Officer
SCOO	Stations Customer & Operations Officer
SDM	Station Duty Manager
TCLO	Train Crew Liaison Officer
TO	Traffic Officer
TSDM	Train Service Delivery Manager
TVO	Track Vehicle Operator
PO	Protection Officer

11 Referenced Documents

- [Rail Safety National Law](#)
- [Rail Safety National Law National Regulation](#)
- [RISSB Safety Critical Communications Guideline](#)
- [RISSB Safety Critical Communications Code of Practice](#)
- [NGE 204 Network communication](#)
- [NGE 230 Communications equipment](#)
- [NPR 721 Spoken and written communication](#)
- [Sydney Trains Safety Critical Communications Framework](#)
- Sydney Trains SCC Organisational Procedure
- Suburban Services SCC Operating Procedure
- Intercity Services SCC Operating Procedure
- Rail Operations SCC Operating Procedure
- Engineering and Maintenance SCC Operating Procedure
- [SCC Responsible, Accountable, Consulted and Informed \(RACI\) Document](#)
- [SCC Monitoring and Review Process](#)
- [SCC Risk-based Audio Sampling Determination Matrix](#)
- SMS-09-SP-3021 Records Management Procedure

12 Document Control

Document Custodian: Rail Safety Project Manager

Document Approver: Senior Manager Network Rules

13 Version History

Version No.	Issue Date	Change Notes
1.0	24 June 2025	New SCC Organisational procedure.