KiwiRail

Rule Procedures

Publication date 16 Dec, 2024

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RP01 Applying Network Communications

1. Introduction

1.1 Communication on the Network

On the controlled network, the VHF Train Control Radio System is the main communication link between Train Control and:

- Operators on rail vehicles
- Maintenance Personnel vehicles
- handheld radios.

IMPORTANT
Effective radio and telephone communication are essential for safety in the network.

NOTE
For the operating requirements of the radio system, refer to the **Radio Systems Manual**.

1.2 Train Control Radio System

Rail Personnel

You must only use the Train Control Radio System to communicate information to the Train Controller about essential rail activities and emergencies.

When the radio is in operation, you must use this as the primary means of communication for transmitting particulars of operating instructions and authorities.

Only when you attempt to use the radio and

- it is found to be defective, or
- there are issues with reception,

then you must use the phone. When you use the phone to contact the Train Controller, you must:

1. immediately advise the Train Controller the reason why radio contact was unable to be made
2. follow all radio procedures and techniques.

IMPORTANT
All communications on Train Control channels must only be to or from the Train Controller unless the Train Controller permits direct communications between two field users.

Train Controller
You have the authority to decline transmitting any operating instructions and authorities if:

1. no attempt has been made to use the radio, or
2. conditions are present that impede effective communication (e.g., noise or degraded transmission).

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2. Communications Protocol

The efficient use of the radio depends largely on applying operating procedures and how the user speaks.

1. Take extra care to differentiate between words of similar lengths containing similar sounds.
2. To avoid running words together, speak all words clearly and distinctly, with each word ending clearly.
3. Do not shout, speak rapidly, or raise the pitch of your voice.

2.1 Phonetic Alphabet

The phonetic alphabet is the name given to using a whole word instead of a letter when spelling words. The word used will start with the letter it is used in place of. For example, the word **'Cab'** would be spelt phonetically using **C**harlie, **A**lpha and **B**ravo.

The primary purpose of the phonetic alphabet is to avoid confusion between letters and figures having similar sounds, such as A, K and J, or F and S or B, C, D, E, G, P, T and V or 2 and 3 or 5 and 9. The possibility of confusion is greater when other noises, such as static and other people talking, are present.

Under these conditions use of the phonetic alphabet will help considerably. However, when there is a complete absence of interference and transmissions are perfectly readable, phonetics can be eliminated except for difficult names and unusual words.

The following internationally accepted phonetic alphabet must be used when required.

Rail Personnel

If it is necessary to spell words, use the spoken letter names in Table 1 and stress the syllables in capital letters.

Table 1: Phonetic Alphabet

	Name	Say		Letter name	Say
A	ALPHA	AL-fah	**N**	NOVEMBER	No-VEM-ber
B	BRAVO	BRAH-voh	**O**	OSCAR	OSS-cah
C	CHARLIE	CHAR-lee	**P**	PAPA	Pah-PAH
D	DELTA	DELL-tah	**Q**	QUEBEC	Kee-BECK
E	ECHO	ECK-oh	**R**	ROMEO	ROW-me-oh

	Name	Say		Letter name	Say
F	FOXTROT	FOX-trot	**S**	SIERRA	See-AIR-rah
G	GOLF	GOLF	**T**	TANGO	TAN-go
H	HOTEL	Ho-TELL	**U**	UNIFORM	YOU-nee-form
I	INDIA	IN-dee-ah	**V**	VICTOR	VIK-tah
J	JULIET	JEW-lee-ETT	**W**	WHISKEY	WISS-key
K	KILO	KEY-loh	**X**	X-RAY	ECKS-ray
L	LIMA	LEE-mah	**Y**	YANKEE	YANG-key
M	MIKE	MIKE	**Z**	ZULU	ZOO-loo

2.2 Spoken Numbers

Rail Personnel

Use the spoken numbers in Table 2 and stress the syllables in capital letters. For a decimal point (.), say “Point”.

Table 2: Spoken Numbers

For digit	Number Name	Say
0	Zero	ZEE-ro
1	One	WUN
2	Two	TOO
3	Three	thuh-REE
4	Four	FOW-er
5	Five	FIFE
6	Six	SIX
7	Seven	SEV-en
8	Eight	ATE
9	Nine	NIN-er

2.3 Standard Words and Phrases

Using standard words and phrases helps radio communication by giving a known meaning in a short form without being misunderstood. It can also help avoid words that can be easily missed or misunderstood when reception is poor (e.g., 'no' can be easily missed or sound like 'go'; it is better to use 'negative').

Listed below is a selection of words and phrases frequently used in radio and telephone communications:

*Applies to radio communications only.

Rail Personnel

Use only standard terms to convey meanings, as detailed in Table 3.

Table 3: Terms and Meanings

Term	Meaning
Acknowledge	Tell me whether you have received and understood this message.
Affirmative	Yes, or permission granted.
Correction	An error has been made in this transmission (or message). Say 'Correction - I say again. The correct version is...'
Emergency, Emergency, Emergency	This is an emergency.

Term	Meaning
How do you hear me?	How well are you receiving my transmission?
I say again	I am going to repeat all or part of my last statement.
Loud and clear	Your signal is strong, and every word is understood.
Message received	I received and understood your message.
Negative	No, or permission not granted.
Out *	My transmission is complete, and I expect no reply from you.
Over *	I have finished speaking. I am waiting for a reply.
Read back	Repeat my message or essential information back to me exactly as you received it.
Receiving *	I acknowledge your call. Proceed with the message.
Roger	All your last statement is received and understood.
Say again	Please repeat your last statement.
Speak slower	Repeat what you said, speaking more slowly. It is hard to understand you.
Stand by	I am not ready to receive your instructions or give further instructions. I will call you when ready. Please take no action.
That is correct	That is right.

2.4 The 24-Hour Clock

Rail Personnel

The 24-hour Clock must be used, and the pronunciation in Table 4 is acceptable and must be used to convey times.

Table 4: 24-Hour Clock

Time	24-hour time	Number	Acceptable Pronunciations
12 am	00:00	Zero	Zero hundred hours
1 am	01:00	One	Zero one hundred hours
2 am	02:00	Two	Zero two hundred hours
3 am	03:00	Three	Zero three hundred hours
4 am	04:00	Four	Zero four hundred hours
5 am	05:00	Five	Zero five hundred hours
6 am	06:00	Six	Zero six hundred hours
7 am	07:00	Seven	Zero seven hundred hours
8 am	08:00	Eight	Zero eight hundred hours
9 am	09:00	Nine	Zero nine hundred hours
10 am	10:00	Ten	Ten hundred hours
11 am	11:00	Eleven	Eleven hundred hours
12 pm	12:00	Twelve	Twelve hundred hours
1 pm	13:00	Thirteen	Thirteen hundred hours
2 pm	14:00	Fourteen	Fourteen hundred hours
3 pm	15:00	Fifteen	Fifteen hundred hours
4 pm	16:00	Sixteen	Sixteen hundred hours
5 pm	17:00	Seventeen	Seventeen hundred hours
6 pm	18:00	Eighteen	Eighteen hundred hours
7 pm	19:00	Nineteen	Nineteen hundred hours
8 pm	20:00	Twenty	Twenty hundred hours
9 pm	21:00	Twenty-One	Twenty-one hundred hours
10 pm	22:00	Twenty-Two	Twenty-two hundred hours
11 pm	23:00	Twenty-Three	Twenty-three hundred hours

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H	HOTEL	Ho-TELL	**U**	UNIFORM	YOU-nee-form
I	INDIA	IN-dee-ah	**V**	VICTOR	VIK-tah
J	JULIET	JEW-lee-ETT	**W**	WHISKEY	WISS-key
K	KILO	KEY-loh	**X**	X-RAY	ECKS-ray
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How do you hear me?	How well are you receiving my transmission?
I say again	I am going to repeat all or part of my last statement.
Loud and clear	Your signal is strong, and every word is understood.
Message received	I received and understood your message.
Negative	No, or permission not granted.
Out *	My transmission is complete, and I expect no reply from you.
Over *	I have finished speaking. I am waiting for a reply.
Read back	Repeat my message or essential information back to me exactly as you received it.
Receiving *	I acknowledge your call. Proceed with the message.
Roger	All your last statement is received and understood.
Say again	Please repeat your last statement.
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3. Radio Protocols

3.1 Radio User

Rail Personnel

NOTE
For the operation of radios, refer to the **Radio System Operations Manual** to support radio communications.

1. Be alert to receive messages at all times.
2. If you cannot listen to the radio, tell other Rail Personnel of the expected time that listening will be resumed.
3. Before transmitting, listen for a period to be satisfied that the transmission will not cause harmful interference. If interference is likely, wait until the channel is clear, except when emergency conditions apply.
4. Do not reply to calls without being certain it is intended for you. Only reply when the call has been repeated and is understood.
5. If no reply is received after an attempt to establish contact, pause for at least 10 seconds before repeating the attempt.

3.2 Radio Technique

Rail Personnel

1. Maintain your voice at an even level.
2. Maintain an even rate of speaking.
3. Take a slight pause before and after numbers to make them easier to understand.
4. Speak clearly with a natural rhythm. Speech that is too slow is as hard to understand as speech that is too fast. Emphasis on parts of words also makes speech hard to understand.
5. When necessary, to ensure clarity of communication, use an appropriate word to convey phonetic alphabet letters.
6. Use standard terms and phrases wherever possible.

3.3 Testing the Radio

To find out whether it is possible to communicate with another radio, or if a radio is working properly:

Rail Personnel

1. Call the radio concerned and ask, "Testing, testing, how do you hear me, over."

Receiver

2. Use the following scale to report how well you can understand the transmission:
   - unreadable
   - very weak
   - readable but with difficulty
   - readable
   - clear.
3. Reply using the selected scale (e.g., "Train Control from Locomotive Engineer 243, you are clear").

3.4 Call Signs

All radios will be identified by a call sign. This call sign will either be permanently allocated to it or designated for the role of the Rail Personnel who normally uses it. Where there is more than one radio with the same designation, a name or number must be added to the designation.

Rail Personnel

1. Use full radio call signs when establishing contact.
2. Give the call sign of the radio called, followed by the words "This is" or "From", followed by your call sign.
3. If it is known that the radio call is waiting for the call, it will not be necessary to repeat its call sign.

Table 5: Examples of Call Signs

	Examples of Call Signs
1	North Rail Operator, North Rail Operator, this is Team Leader, over.
2	Locomotive Engineer 216, Locomotive Engineer 216, this is Train Control, over.
3	Locomotive Engineer 243, Locomotive Engineer 243, From Rail Operator 243, over.

3.5 Communication Requirements

Communication normally starts with a base call and a reply to establish contact before conveying the message. However, when it is certain that the person called is listening and will receive the call, the caller may transmit the message before giving the receiver called an opportunity to reply.

After contact has been established, continuous two-way communication can be permitted without further identification or call (if no mistake in identity will occur) until the communication ends.

Table 6: Examples of Communication Requirements

Requirements	Communication
Establish contact	North Rail Operator, this is Team Leader, over
Rail Operator acknowledges	Team Leader, this is North Rail Operator, over
Team Leader passes their message	Is the make-up of 243 complete? Over
Rail Operator replies	Negative, it will be complete in about five minutes, over
Team Leader acknowledges and closes	Roger, Team Leader out
Establish contact and pass the message	Locomotive Engineer of 200 from Train Manager of 200, right of way, over
Locomotive Engineer acknowledges and closes	Train Manager of 200 from Locomotive Engineer of 200 Roger, Locomotive Engineer out

3.6 Acknowledgements

Sender

1. You must not assume any message has been received until it is acknowledged.

Receiver

2. Acknowledge the instructions to be written by reading back to the sender to allow a cross-check.

Sender

3. Acknowledge the correctness of the read back of the message.

Receiver

4. When the message is correctly received, acknowledge it using the standard word "Roger".

3.7 Corrections

Sender

1. When an error has been made in transmission, say "Correction", include the last correct number or phrase repeated and then transmit the correct version.
2. If reception is difficult, transmit the important parts of the message twice.

Receiver

3. When the receiving message is unclear, request that all or part of the message be repeated.
4. If repetition of an entire message is required, use the words "Say again".
5. If repetition of part of a message is required, state:
   a. Say again all before ..... (the first word received satisfactorily), or
   b. Say again ..... (word before missing portion) to..... (word after missing portion), or
   c. Say again all after ..... (the last word received satisfactorily).

Sender

6. If a correction can be made by repeating the entire message, use the phrase "I say again" before transmitting the message a second time.

7. If, in checking the correctness of a read back, you notice that it is wrong, you must say "Negative" followed by the correct message.

3.8 Radio Calls to Train Control

A network of VHF radio repeaters and a Train Control supervisory system are provided to enable Rail Personnel to communicate with Train Control.

Tunnels over 100 metres long are provided with special systems to provide radio coverage.

When a train is stopped in a tunnel and Train Control cannot be contacted, the Operator may uncouple the motive power unit, move out of the tunnel, and again attempt to contact Train Control or await assistance (unless otherwise provided for in individual tunnel operating instructions).

When a motive power unit is stopped in a tunnel without a tunnel radio system, communication between a motive power unit and a UHF portable will be impossible. This would also apply if the motive power unit was outside the tunnel and the UHF portable was inside. If the motive power unit cannot be moved, the Operator may walk out of the tunnel. The train is to be secured in accordance with the **Rail Operating Rules**.

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NOTE
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2. If you cannot listen to the radio, tell other Rail Personnel of the expected time that listening will be resumed.
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1. Call the radio concerned and ask, "Testing, testing, how do you hear me, over."

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2. Use the following scale to report how well you can understand the transmission:
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3. Reply using the selected scale (e.g., "Train Control from Locomotive Engineer 243, you are clear").

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4. Radio Communication Faults

Where the motive power unit radio fault cannot be recognised by the Operator but by the Train Controller, then the Train Controller must ensure KiwiRail Operations Support (155) is advised. If necessary, a Mis.346 is completed by the Operator.

4.1 Faults During Tests

Competent Worker

1. Endorse the Operating Company's Defect Book when any motive power unit radio faults are discovered during tests.
2. Tell KiwiRail Operations Support or Terminal Supervisor or Team Leader.

Terminal Supervisor/Team Leader

3. Report the fault to KiwiRail Operations Support.

4.2 Faults During Train Running

Operator

1. When the motive power unit radio equipment is faulty, use any means available to tell the Train Controller as soon as possible.
2. If radio repeaters or other parts of the network are suspected to be faulty, tell the Train Controller of the suspected defect. Do not assume that the Train Controller is aware of the fault.
3. Complete the Mis.346 form when a radio fault is experienced on a motive power unit while running a train.
4. Hand in the appropriate completed forms to your Terminal Supervisor/Team Leader on completion of your train journey.

4.3 Defective Radio

Train Controller

1. When receiving advice on a defective radio on a motive power unit, promptly tell the Rail Operating Company's Service Manager, who will arrange the repairs.
2. At stations where a Terminal Supervisor/Team Leader is not on duty, arrange for the motive power unit to be held for inspection.
3. If there is no communication through the radio repeater for the area where the motive power unit is, tell KiwiRail Operations Support to arrange the repairs immediately.
4. Tell the Rail Operating Company's Service Centre of the motive power unit defective radio.

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5. Radio Failure

5.1 Motive Power Unit VHF Radio Failure

Train Controller

1. Arrange for the motive power unit to be changed or for a second Train Crew member to join the train at the next convenient station.
2. Arrange for the motive power unit to be bad ordered pending repairs.

5.2 Radio Link Failure

Train Controller

1. Tell the Operators concerned immediately and arrange for a second Train Crew member to be at the next convenient station for each freight train affected.
2. Do not let a freight train depart from a terminal station until the second Train Crew member has joined the train.
3. For both repeater link or train control system failures when a train is en route, the train should continue until it reaches a station where a second Train Crew member can be provided.
4. Tell the Operator to call from the agreed stations during the journey, leaving the portable radio in the motive power unit.
5. If you do not hear from the Operator at the expected time, apply the **Train Control and Signal Box Manual** requirements.

Operator

6. Call the Train Controller from the agreed stations en route to the next station where the motive power unit can be replaced, or a second Train Crew member can be provided.

5.3 Passenger Trains - Special Instructions

Operator

1. For both repeater link or train control system failures, continue as normal and tell the Train Manager of the situation so that they are aware and initiate the necessary action.

Train Manager

2. Accompany the Operator in the motive power unit cab to perform Second Person duties.
3. Delegate duties to other Onboard Service Personnel.

Train Controller

4. Promptly tell the KiwiRail Operations Support and the Rail Operating Company's Service Manager, who will arrange for the repairs to be undertaken.

5.4 Radio System Failure

Train Controller

1. When the system crashes tell the KiwiRail Operations Support (155) who will tell communications personnel of the need to reboot the system.

NOTE
When a power supply fails and the standby supply is engaged for a short period, the screen will go blank briefly. While the system is inoperative, select the repeaters using the dial-up process to check with trains in the area. If there is a radio link failure, follow the procedures set out in the **Radio Systems Manual**.

5.5 Radio Repeater Failure

Train Controller

1. If a radio repeater fails, preventing communication with the Operator, tell the KiwiRail Operations Support who will contact communications personnel immediately.

5.1 Motive Power Unit VHF Radio Failure

Train Controller

1. Arrange for the motive power unit to be changed or for a second Train Crew member to join the train at the next convenient station.
2. Arrange for the motive power unit to be bad ordered pending repairs.

5.2 Radio Link Failure

Train Controller

1. Tell the Operators concerned immediately and arrange for a second Train Crew member to be at the next convenient station for each freight train affected.
2. Do not let a freight train depart from a terminal station until the second Train Crew member has joined the train.
3. For both repeater link or train control system failures when a train is en route, the train should continue until it reaches a station where a second Train Crew member can be provided.
4. Tell the Operator to call from the agreed stations during the journey, leaving the portable radio in the motive power unit.
5. If you do not hear from the Operator at the expected time, apply the **Train Control and Signal Box Manual** requirements.

Operator

6. Call the Train Controller from the agreed stations en route to the next station where the motive power unit can be replaced, or a second Train Crew member can be provided.

5.3 Passenger Trains - Special Instructions

Operator

1. For both repeater link or train control system failures, continue as normal and tell the Train Manager of the situation so that they are aware and initiate the necessary action.

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NOTE

When a power supply fails and the standby supply is engaged for a short period, the screen will go blank briefly. While the system is inoperative, select the repeaters using the dial-up process to check with trains in the area. If there is a radio link failure, follow the procedures set out in the **Radio Systems Manual**.

5.5 Radio Repeater Failure

Train Controller

1. If a radio repeater fails, preventing communication with the Operator, tell the KiwiRail Operations Support who will contact communications personnel immediately.

6. Shunting

6.1 Locomotives

KiwiRail locomotives are equipped with both UHF and Train Control Radio systems.

Operator

1. When the radio system is to be changed from UHF to Train Control, tell the Rail Operator before making the change.
2. Confirm with the Rail Operator that they understand that radio communication with the Operator will not be possible.
3. Bring the rail movement to a stop while the switching is carried out.
4. Tell the Rail Operator when the system has returned to the UHF.

Rail Operator

5. Confirm with the Operator that you understand that radio communication is unavailable during the switch.
6. Move to a safe area until the Operator has restored communications.

6.2 Terminal Supervisors

Team Leader

1. To call a shunt gang using the call button:
   a. select the right channel
   b. wait 10 seconds to ensure the channel is clear of all communications
   c. press the call button on the radio.
2. Convey the message to the Rail Operator in Charge.
3. When the communication is complete, transmit ‘operations out’.
4. Once the transmissions are complete, return the radio to channel.

Rail Operator

5. Stop the shunting movement when a call is received from the Team Leader.
6. Call the Team Leader on the working channel.

6.3 Safe Radio Procedures

Rail Operator

1. Do not carry ASP radios in your hand when shunting.
2. Keep conversations as short as possible and follow ASP communications instructions:
   a. maintain continuous communications for close work
   b. maintain continuous communications for short movements
   c. regular communication is expressed in wagon lengths for propelling movements.

Operator

3. When a sudden or a prolonged break between transmissions occurs, or doubt about the meaning of the instruction exists, stop the rail movement and do not move your rail vehicle until communication is restored or the instruction is understood.

Rail Operator

4. Ensure transmissions occur as close as possible to the locomotive when working between rakes of wagons loaded with containers or under an overbridge.
5. If feedback occurs on the portable radio, turn the receiver volume control down or move further from other Rail Operators.

6.4 ASP Safety Precautions

Rail Operator

1. Report any interference with any radio transmission to your Team Leader as a fault.
2. Provide the following information to the Team Leader:
   a. channel number
   b. location of radio
   c. type of interference heard (e.g., voices clear, garbled, whistling, or buzzing sounds, continuous noise or on/off).
3. When interference occurs, stop the movement immediately.
4. Clarify the interfering call with other Rail Personnel in the shunting gang.
5. Wait to commence shunting until clearance is given by the person to whom the problem was reported.

Team Leader

6. Report the fault to KiwiRail Operations Support, where it will be given an urgency one classification.

IMPORTANT
Where poor reception is experienced, it must be reported to KiwiRail Operations Support.

6.5 Change of Channel

Team Leader

If the interference is bad and/or persistent enough to warrant a change of channels to maintain the yard's operations, you may authorise a change to another unused channel.

1. Confirm that all shunting in the yard is stopped.
2. Undertake a briefing for Rail Personnel verbally and in writing, advising when the changeover will occur.
3. Ensure that Rail Personnel on duty at shift changeover receive the same briefing.
4. Report the fault to KiwiRail Operations Support, where it will be given an urgency one classification.

NOTE
Keep records of the briefings and destroy them after one month.

IMPORTANT
The above steps must also be followed when the problem is resolved, and a decision is made to revert to the allocated channel.

6.1 Locomotives

KiwiRail locomotives are equipped with both UHF and Train Control Radio systems.

Operator

1. When the radio system is to be changed from UHF to Train Control, tell the Rail Operator before making the change.
2. Confirm with the Rail Operator that they understand that radio communication with the Operator will not be possible.
3. Bring the rail movement to a stop while the switching is carried out.
4. Tell the Rail Operator when the system has returned to the UHF.

Rail Operator

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4. Once the transmissions are complete, return the radio to channel.

Rail Operator

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   a. maintain continuous communications for close work
   b. maintain continuous communications for short movements
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4. Clarify the interfering call with other Rail Personnel in the shunting gang.
5. Wait to commence shunting until clearance is given by the person to whom the problem was reported.

Team Leader

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IMPORTANT
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NOTE
Keep records of the briefings and destroy them after one month.

IMPORTANT
The above steps must also be followed when the problem is resolved, and a decision is made to revert to the allocated channel.

RP02 Using Track Warrant Control

1. Introduction

Track Warrant Control (TWC) is an operating system where instructions from the Train Controller control the occupation of the main line.

NOTE

Refer to the **Network Signals, Indicators and Boards Manual** for the signals, indicators and boards descriptions.

The beginning of each TWC area will be defined by a notice board stating TWC BEGINS. A notice board will define the end of each TWC area, either TWC ENDS or ASR BEGINS.

TWC areas are arranged and equipped with interlocked stations, warrant stations and sidings.

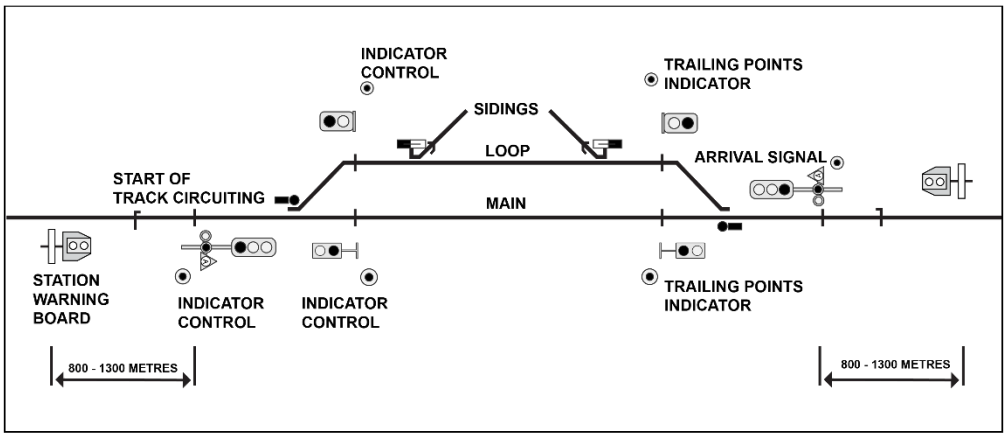

Diagram of a Warrant Station

IMPORTANT

Arrival signals may be substituted with facing points indicators.

KiwiRail

Track Warrant **Mis. 87**

Track Warrant Number **M** _____ day _____ (Date)
(Desk No.) (Warrant No.)

To
Locomotive Engineer/Driver HRV / Operator / Rail Protection Officer *
(Designation, Name, Train, etc.)

At _____

1. ☐ Track Warrant Number _____ is cancelled
2. ☐ After *departure arrival of _____ *from at _____
3. ☐ Proceed from _____ to _____
4. ☐ Work between _____ and _____
5. ☐ Enter _____ at _____ *to cross _____
6. ☐ Main line reported clear _____ *(except for _____)
7. ☐ No other warrants issued between these limits after _____
8. ☐ _____ is verified clear of _____
9. ☐ Not in use
10. ☐ Call Train Control at _____
11. ☐ Clear main line before _____ hours
12. ☐ Other instructions _____

Train Controller

Relayed to _____ at _____ hours

Repeat correct at _____ hours

DAS	☐ DAS Target Location set to:	☐ DAS not Operating
TC cross check by	print name	Initials

Limits reported clear by
Driver HRV / Operator / Rail Protection Officer * at _____ hours

(Mark "X" in box for each item instructed) (* Delete words not required) Oct 2023

Track Warrant Form Mis.87 – Train Control Copy

KiwiRail

Track Warrant **Mis. 88**

Track Warrant Number _____ day _____ (Date) _____

To Driver / Locomotive Engineer / Operator / Rail Protection Officer *
(Designation, Name, Train, etc.)

At _____

1. ☐ Track Warrant Number _____ is cancelled
2. ☐ After *departure / arrival of _____ *from / at _____
3. ☐ Proceed from _____ to _____
4. ☐ Work between _____ and _____
5. ☐ Enter _____ at _____ *to cross
6. ☐ Main line reported clear _____ *(except for _____)
7. ☐ No other warrants issued between these limits after _____
8. ☐ _____ is verified clear of _____
9. ☐ Not in use
10. ☐ Call Train Control at _____
11. ☐ Clear main line before _____ hours
12. ☐ Other instructions _____

Train Controller _____

Repeat correct at _____ hours

Locomotive Engineer use only	☐ DAS Target Location set to ☐ DAS Not in Use

RPO use only	All locked off in Safe Place and Work Site clear at _____ hrs

Limits reported clear by
Driver / Locomotive Engineer / Operator / Rail Protection Officer * at _____ hours

(Mark "X" in box for each item instructed) (* Delete words not required) July 2023

Track Warrant Form Mis.88 – Addressee Copy

2. Warrant Instructions

2.1 Messages Received in Track Warrant Areas

For obvious safety reasons, it is of the utmost importance that all instructions in Track Warrant areas are understood, and that no misunderstanding or error exists.

If an Operator calls to tell that their train has cleared an Intermediate Board, the Train Controller is to reply as follows:

- “I have received your message Locomotive Engineer of 234”
- “I understand you have cleared the..... Intermediate Board, Over".

If messages are clear and correct radio procedures are carried out, then no misunderstanding should exist between Operators and Train Controllers.

2.1 Messages Received in Track Warrant Areas

For obvious safety reasons, it is of the utmost importance that all instructions in Track Warrant areas are understood, and that no misunderstanding or error exists.

If an Operator calls to tell that their train has cleared an Intermediate Board, the Train Controller is to reply as follows:

- “I have received your message Locomotive Engineer of 234”
- “I understand you have cleared the..... Intermediate Board, Over".

If messages are clear and correct radio procedures are carried out, then no misunderstanding should exist between Operators and Train Controllers.

3. Pre-issue Check

Train Controller

Before issuing any track warrant:

1. Establish if any track warrants are still in effect within any part of the limits of the new track warrant about to be issued.
2. Draw all movements authorised by track warrant on the train control diagram in blue to establish whether it is safe to issue a track warrant.
3. Establish by reference to the warrant lines (and to uncancelled track warrants if TWACS is not in use) that either:
   a. there are no other track warrants in effect for any part of the area covered by the track warrant, which is about to be issued, or
   b. it is safe to issue the track warrant in accordance with **SO08 Track Warrant Control**.
4. After establishing that it is safe to issue the track warrant, draw the warrant line (corresponding to the limits of the track warrant being prepared) along the pencil plot line for the train concerned.
5. If the track warrant being issued contains Clause 4 Work Between, show the warrant line as a block and encompass the limits of the authority and the time allowed.
6. Where track meterage or other points apart from stations and sidings are used to define the limits, show beside the warrant line.
7. Confirm the warrant line will correspond to and replace the pencilled plot line (i.e., will show the anticipated progress of the train, including intermediate stopovers for the shunts etc.).
8. After plotting the warrant line, check against previous track warrant lines on the diagram to establish no conflict before preparing the track warrant.

Where the limit of the track warrant terminates at a station or siding and the berthing arrangements are shown in the track warrant, use in blue on the diagram (at the station concerned) the following abbreviations:

- Entering main - M
- Entering loop - L
- Entering siding - S
- Not instructed to enter - O (i.e., stop outside)
- Not instructed to enter - [add signal/points number] (i.e., 4R signal/1 points).

IMPORTANT
The number of the track warrant must be shown in blue adjacent to the warrant line and circled. It should be located towards the terminating end of the warrant line and crossed out in blue when the track warrant is cancelled.

4. Issuing Track Warrants

Track Warrant Control depends on communication between the Train Controller and the Addressee. Public communication facilities should be used in the event of a complete failure of the communication system.

Train Controller

1. Before issuing a track warrant, verify with the Addressee their identity, vehicle, train or mobile track equipment number and location so that there is no doubt that the track warrant is received by the correct Driver/Operator/Rail Protection Officer.
2. When TWACS is in use, verify that all details in the track warrant are correct before confirming that the track warrant will be issued.
3. Stop the transmission process and tell the Addressee to non-issue the track warrant if an error is noticed during the readout.
4. Confirm with the Addressee that this has occurred.
5. Both new and reissue warrants are aborted and non-issued. The correct track warrant can then be prepared and issued to the Addressee.
6. Ensure all relevant parts of the track warrant are completed before any part of the track warrant is transmitted.
7. Enter the relevant details in TWACS.
8. Transmit the instructions to the Addressee.

Addressee

9. Complete the Mis.88 with the exact instructions transmitted.
10. If in any doubt, seek clarification of the track warrant limits.
11. Read back the instructions to the Train Controller.

Train Controller

12. If there is an incorrect read back, tell the Addressee to restart the read back with the correct information.
13. Confirm by saying, “Track Warrant *‘number’* repeated correct at *‘xx:xx’* hours."
14. Endorse the time in the space provided in the track warrant.

Addressee

15. Endorse the time in the space provided in the track warrant.

Locomotive Engineer

16. Set the DAS target location where DAS is in operation.
17. Tell the Train Controller that either DAS is set to *'location'* or DAS is not in use.

Train Controller

18. Acknowledge the Locomotive Engineer's advice of DAS and select the appropriate box.

The track warrant will then be in effect when the Addressee endorses the track warrant with the time.

IMPORTANT
The correct radio procedures must be complied with when a radio is used to transmit track warrants.

IMPORTANT
Track warrants must not be transmitted while the recipient operates a moving rail vehicle or track machine.

NOTE
Numbering sequence when manually issued by Train Control on a Mis.87:

- Manual – M
- Desk numbers – 01, 02, 03, 04, 05
- Track Warrant number 01 – 99 (i.e., M 08 14).

4.1 Following Movement

Train Controller

When a following movement is to be authorised to proceed into the limits of the train in front:

1. Mark off the sections of the warrant line for the leading train which must be cleared before the following movement is authorised.
2. Ensure the circled number of the track warrant for the leading train is shown adjacent to each of these sections.
3. As each section is reported clear, cross out and endorse the relevant circled number with the time the call was made.

4.2 Terminates at a Location

Train Controller

1. When the track warrant terminates at a location where a current track warrant starts or terminates, confirm that the instructions issued do not conflict with the other track warrant.
2. Do not issue a track warrant authorising a movement to proceed to a location like another track warrant.

4.1 Following Movement

Train Controller

When a following movement is to be authorised to proceed into the limits of the train in front:

1. Mark off the sections of the warrant line for the leading train which must be cleared before the following movement is authorised.
2. Ensure the circled number of the track warrant for the leading train is shown adjacent to each of these sections.
3. As each section is reported clear, cross out and endorse the relevant circled number with the time the call was made.

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Train Controller

1. When the track warrant terminates at a location where a current track warrant starts or terminates, confirm that the instructions issued do not conflict with the other track warrant.
2. Do not issue a track warrant authorising a movement to proceed to a location like another track warrant.

5. Fouling the Loop

If a track warrant for a through or berthing movement has already been issued:

Train Controller

1. Verbally tell berthing trains already authorised to enter the same loop.
2. Verbally tell the Operators of passing train(s).
3. Endorse the train control diagram with the train numbers advised after the acknowledgement of the Operators.
4. Grant permission to occupy the loop.

Operator

5. Contact the Rail Personnel verbally authorised to occupy the loop and reach a safe working arrangement of how the conflicting movements will be safely performed.
6. If radio contact cannot be established:
   a. undertake a visual observation to confirm it is safe to enter the station, or
   b. request the Train Controller to establish and tell the whereabouts of the opposing train.

6. Relaying Track Warrants

If the Train Controller does not communicate directly with the Addressee, the track warrant details may be relayed to a Competent Worker.

Competent Worker

1. Correctly repeat the particulars to the Train Controller before relaying the track warrant to the Addressee.

Addressee

2. Read back correctly to the Competent Worker.

Competent Worker

3. Confirm with the words “That Is Correct”, followed by the time.
4. Endorse this time in the space provided in the track warrant, which will then be in effect.

Addressee

5. Endorse this time in the space provided in the track warrant, which will then be in effect.

Competent Worker

6. Tell the Train Controller that the track warrant has been relayed to the Addressee and the time the correct repeat was obtained.
7. Write the word *'Relayed'* across the face of the track warrant and forward it to your Line Manager.

Train Controller

8. Endorse this correct repeat time on the Train Controller copy of the track warrant.

7. Cancelling Track Warrants

When an Addressee reports their track warrant can be cancelled:

Addressee

1. Report to the Train Controller when the main line has been cleared within the limits of the track warrant.

Train Controller

2. Confirm that the correct track warrant is crossed off the train control diagram and cancelled either in TWACS or on the Mis.87 pad.
3. When TWACS is in use, before cancellation, positively identify the location of the Addressee in accordance with **RP13 Identification and Verification of Location**, confirm the correct track warrant, the Addressee, and the limits are correct.
4. Acknowledge the track warrant being cancelled with the Addressee, including the time.

Addressee

5. Confirm with the words “That Is Correct” and endorse the time given by the Train Controller in the space provided on the track warrant.
6. Write the word *'Cancelled'* across the face of the track warrant.
7. After reporting clear of the limits, do not act on the authority of the cancelled track warrant.

The word *'Cancelled'* must be written across the face of the track warrant when either:

- the Addressee has reported clear of the limits, or
- the track warrant has been cancelled by a subsequent track warrant.

8. Warrant Stations with Arrival Signals and/or Points Indicators

When trains cross at a station or junction, push-buttons will normally need to be operated for one train. The remaining movements will be signalled automatically.

The push-button controls must be operated in the following circumstances:

8.1 Berthed on the Main Line

The first train to arrive for a crossing has berthed on the main line:

Operator

1. Operate the stop push-button at the trailing points indicator.
2. Where a time delay light is fitted, wait for this to extinguish, then operate the loop push-button.
3. Close the control box door.

8.2 Berth on the Loop

The first train to arrive is required to berth on the loop:

Operator

1. Operate the stop push-button at the arrival signal / facing points indicator.
2. Wait for the time delay light to extinguish.
3. Operate the loop push-button.
4. Close the control box door.

8.3 Depart from the Loop

A train (or shunt) is to depart from the loop when no crossing has taken place:

Operator

1. Operate the loop push-button at the trailing points indicator.

8.4 Move the Points for Shunting

Operator

1. Operate the controls from either:
   a. a control box (new station type), or
   b. the arrival signal / facing points indicator control box (old type).

8.5 Route Indication Not Displayed

A rail vehicle has arrived at a junction, and the required route indication is not displayed:

Operator

1. Operate the stop push-button at the arrival signal/points indicator.
2. Confirm the signals/points indicators have reverted to stop.
3. Where a time delay light is fitted, wait for this to extinguish, then operate the main/branch push-button.
4. Close and lock the control box door.

8.6 Hold a Signal or Indicator at Stop

Operator

1. Operate the stop push button.
2. Leave the control box door open.

8.7 Obtain a Proceed Indication

To obtain a proceed indication after a stop push-button has been operated.

Operator

1. Operate the main or loop/branch push-button.
2. Close and lock the control box door.

8.8 Enter or Leave a Backshunt

A movement is to enter or leave a backshunt at the end of the loop.

Operator

1. Operate the key switch alongside the control buttons for the trailing points indicator.
2. Leave in the GO position until the movement is clear of the points.

8.9 Delayed at a Warrant Station

When delayed at a warrant station and a level crossing is located within 600 metres of the signal/points indicator at which the train is stopped, the Operator must ensure the alarms do not operate continuously and delay road traffic.

Operator

1. Operate the arrival signal/points indicator control stop push-button.
2. Confirm the signals/points indicators have reverted to stop.
3. Confirm the alarms have stopped operating after the time delay.
4. Once the train is ready to proceed, operate the main or loop/branch push-button.

8.1 Berthed on the Main Line

The first train to arrive for a crossing has berthed on the main line:

Operator

1. Operate the stop push-button at the trailing points indicator.
2. Where a time delay light is fitted, wait for this to extinguish, then operate the loop push-button.
3. Close the control box door.

8.2 Berth on the Loop

The first train to arrive is required to berth on the loop:

Operator

1. Operate the stop push-button at the arrival signal / facing points indicator.
2. Wait for the time delay light to extinguish.
3. Operate the loop push-button.
4. Close the control box door.

8.3 Depart from the Loop

A train (or shunt) is to depart from the loop when no crossing has taken place:

Operator

1. Operate the loop push-button at the trailing points indicator.

8.4 Move the Points for Shunting

Operator

1. Operate the controls from either:
   a. a control box (new station type), or
   b. the arrival signal / facing points indicator control box (old type).

8.5 Route Indication Not Displayed

A rail vehicle has arrived at a junction, and the required route indication is not displayed:

Operator

1. Operate the stop push-button at the arrival signal/points indicator.
2. Confirm the signals/points indicators have reverted to stop.
3. Where a time delay light is fitted, wait for this to extinguish, then operate the main/branch push-button.
4. Close and lock the control box door.

8.6 Hold a Signal or Indicator at Stop

Operator

1. Operate the stop push button.
2. Leave the control box door open.

8.7 Obtain a Proceed Indication

To obtain a proceed indication after a stop push-button has been operated.

Operator

1. Operate the main or loop/branch push-button.
2. Close and lock the control box door.

8.8 Enter or Leave a Backshunt

A movement is to enter or leave a backshunt at the end of the loop.

Operator

1. Operate the key switch alongside the control buttons for the trailing points indicator.
2. Leave in the GO position until the movement is clear of the points.

8.9 Delayed at a Warrant Station

When delayed at a warrant station and a level crossing is located within 600 metres of the signal/points indicator at which the train is stopped, the Operator must ensure the alarms do not operate continuously and delay road traffic.

Operator

1. Operate the arrival signal/points indicator control stop push-button.
2. Confirm the signals/points indicators have reverted to stop.
3. Confirm the alarms have stopped operating after the time delay.
4. Once the train is ready to proceed, operate the main or loop/branch push-button.

9. Non-activated Track Circuits

When rail vehicles which cannot be relied upon to activate track circuits are required to berth on or depart from the main line or loop, you must:

Old Station Type

Operator / Driver

1. Operate the controls from the arrival signal / facing points indicator control box to set the points for the main or loop.
2. Operate the ganger control switch at that end of the station.
3. Leave in the on position.
4. Set the ganger control switch to manual and close the indicator control box to restore to normal operation.

New Station Type

Operator / Driver

1. Operate the ganger control switch at that end of the station of the required route (main or loop) position.
2. Confirm that the points locked indication or ‘A’ light is illuminated.
3. Leave in the main or loop position.
4. To restore to normal, set the ganger control switch to off.

IMPORTANT
The switch must be left in this position for both types until the movement has passed completely over the points.

10. Working Sidings

When working sidings off the main line:

Addressee

1. Obtain an appropriate track warrant.
2. Operate the main line points.
3. Restore the main line points, ensuring they are locked in normal, and all is safe for the passage of trains through on the main line.

10.1 Allowing Trains to Pass

To completely enter a siding to allow other trains to pass.

Addressee

1. Certify to the Train Controller that:
   a. the main line points are secured in normal
   b. the main line will not be fouled again, or
   c. the main line points will not be operated until a subsequent track warrant is authorised.
2. Clear limits of the track warrant.

Train Controller

3. Upon confirmation from the Addressee that the track warrant has been cancelled, authorise other movements on the main line in accordance with **SO08 Track Warrant Control, 4. Issuing a Track Warrant.**

10.1 Allowing Trains to Pass

To completely enter a siding to allow other trains to pass.

Addressee

1. Certify to the Train Controller that:
   a. the main line points are secured in normal
   b. the main line will not be fouled again, or
   c. the main line points will not be operated until a subsequent track warrant is authorised.
2. Clear limits of the track warrant.

Train Controller

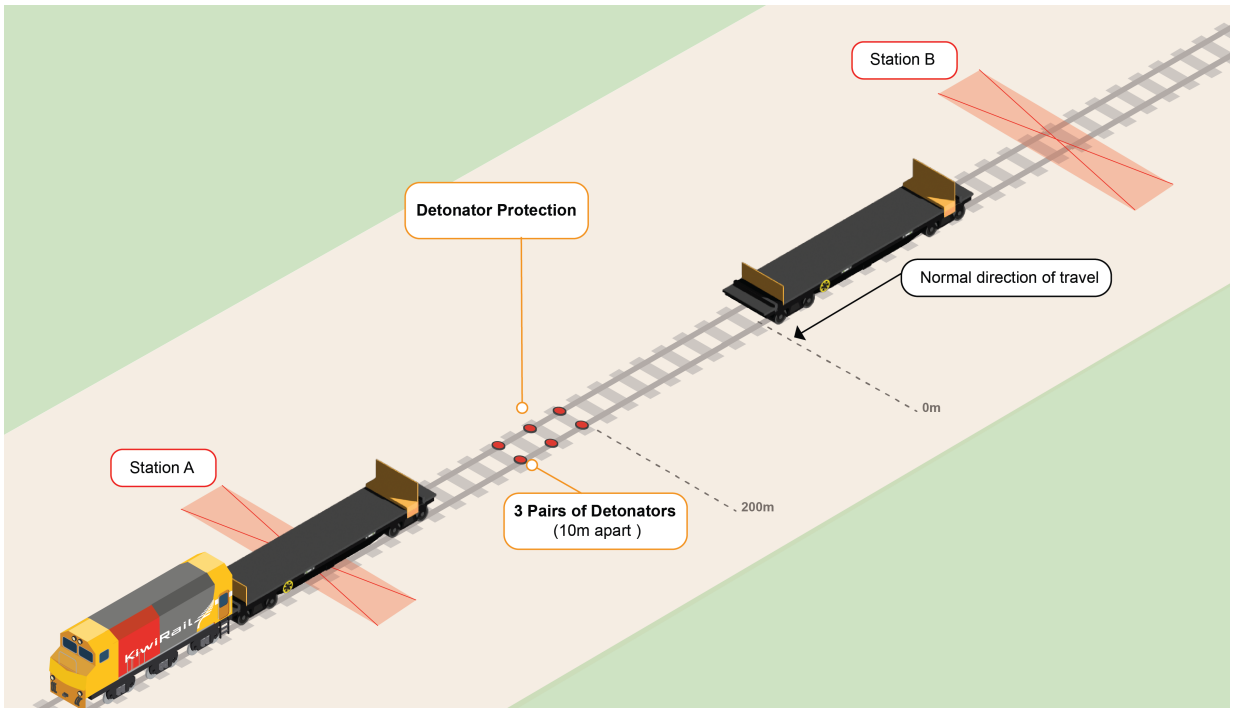
3. Upon confirmation from the Addressee that the track warrant has been cancelled, authorise other movements on the main line in accordance with **SO08 Track Warrant Control, 4. Issuing a Track Warrant.**

11. Train Divided or Stalled

11.1 Double Banking

The Locomotive Engineer must take forward a portion of the train and return for the remaining part of the train when:

- a train is divided or stalled owing to an accident, or
- the locomotive(s) cannot take the whole train forward.



Protection Arrangement

Locomotive Engineer

1. Arrange for the rear portion of the train to be secured.

Train Crew

2. Uncouple the portion that is to be taken forward.
3. Tell the Locomotive Engineer to move this portion forward 200 metres.
4. Place 3 detonators 10 metres apart on each rail at 200 metres from the front vehicle of the rear portion to warn the Locomotive Engineer, when returning, of the position of the remainder of the train.
5. Tell the Locomotive Engineer the class and number of the rear vehicle on the front portion.

11.2 Arrival at Warrant Station

Locomotive Engineer

1. On arrival at the warrant station, check that the front portion has arrived complete.
2. Tell the Train Controller and the Officer in Charge if the station is attended.

Train Controller

3. Confirm that a current track warrant is held to permit the locomotive to recover the remaining portion of the train.
4. Confirm that no subsequent authority has been granted for track occupancy.
5. At an interlocked station, confirm:
   a. the points are correctly set, and
   b. a proceed indication is displayed on the starting signal.
6. Only when action steps above have been completed tell the Locomotive Engineer to return and remove the remainder of the train from the section.

Locomotive Engineer

7. Confirm the instructions from the Train Controller.
8. Return and remove the remainder of the train from the section.

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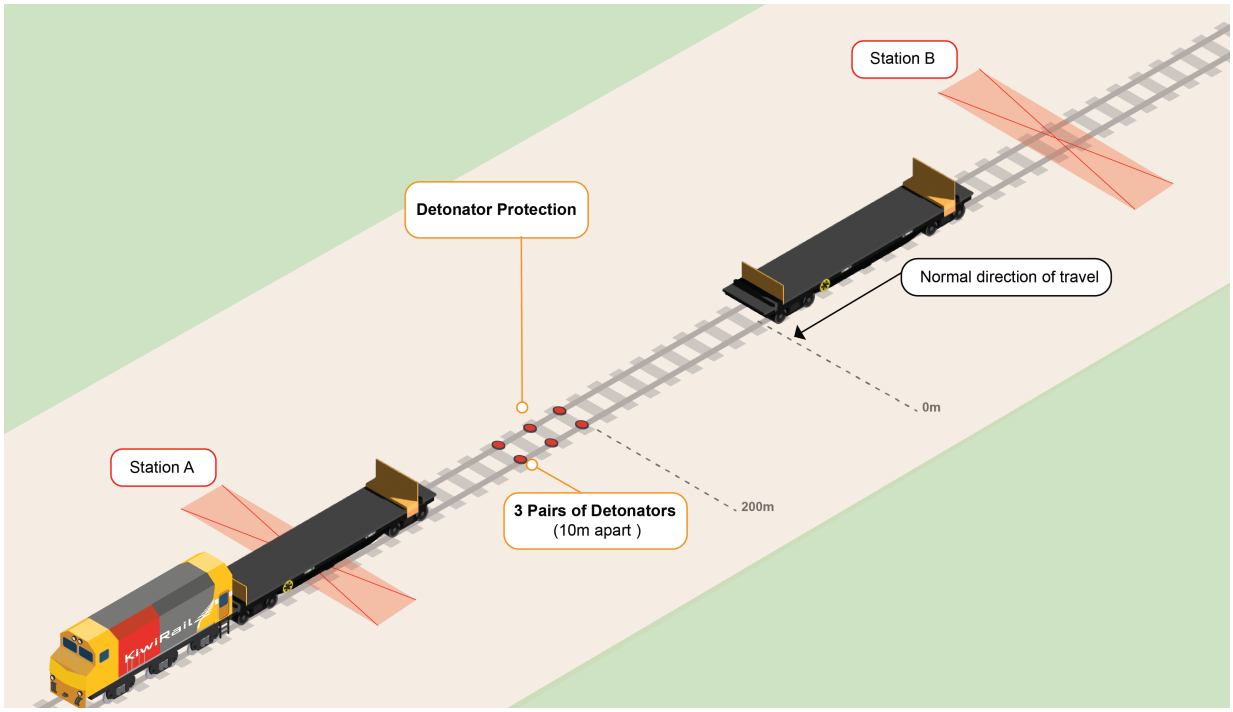

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6. Only when action steps above have been completed tell the Locomotive Engineer to return and remove the remainder of the train from the section.

Locomotive Engineer

7. Confirm the instructions from the Train Controller.
8. Return and remove the remainder of the train from the section.

12. Recoupling Divided Train

12.1 Accidental Dividing of a Train

When a train has become accidentally divided, the front portion of a train may be moved back to the rear portion, provided:

- the two portions can be effectively coupled
- both portions have come to a stop within sight of each other
- a controlled signal does not intervene.

Operator

1. When you are the Operator of the relief train, obtain the Locomotive Engineer's permission to assist in the rear of the train if in place before any movements.

Locomotive Engineer

2. Should the rear portion not be in sight, tell the assisting Rail Personnel to proceed back and confirm the location of the rear portion.
3. Once the rear portion location has been established, authorise the front of the train to move back only if the two portions can be effectively coupled.
4. If the train cannot be coupled and it is necessary to remove it from the section in more than one portion, apply **RP02 Using Track Warrant Control, 11. Train Divided or Stalled**.

12.2 Planned Division of a Train

When a train is carrying out maintenance work, and it is necessary to divide the train.

Locomotive Engineer

1. Secure the rear portion of the train.
2. Move the front portion forward to carry out the required work.
3. Once the work has been completed, return to the rear portion of the train, and recouple.

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- the two portions can be effectively coupled
- both portions have come to a stop within sight of each other

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13. Intermediate Permissive Signal

When an Operator observes a permissive signal at stop.

Operator

1. Stop the train before the signal.
2. At the expiration of 10 seconds, and if the signal is still at *stop,* proceed cautiously in accordance with the conditions of the track warrant.
3. Be prepared to find the line ahead to the next fixed signal either occupied, obstructed or have a displaced rail.
4. Where there are main line points on the line ahead of a permissive signal passed at stop, examine the points to confirm they are correctly set and secured to pass safely over.
5. After passing a permissive signal at stop, travel at Restricted Speed.
6. Approach level crossings equipped with automatic alarms with caution, as they may not operate correctly.
7. If the next signal is at proceed, still be prepared to stop the train clear of any obstructions.

14. Train Controller Errors and Relief

14.1 Errors

Train Controller

1. If the wrong track warrant is accidentally cancelled in TWACS, prepare a new track warrant with the same limits and step through the issuing process. If the full limits cannot be covered due to the following movement, issue a track warrant covering the available limits. You must tell and consult with the Network Control Manager for both situations.
2. Complete the issuing process in TWACS and do not read to the Addressee.
3. Update the train control diagram with the new track warrant number.

4. If a manual track warrant is required to protect the original authorisation, TWACS Blocking must be applied, and a second authorised Train Controller must cross-check the manual track warrant.
5. Do not rub out the line when an error is made in drawing the line. The incorrect line or portion of the line is crossed out and redrawn.

Endorsement Colours

Endorsements	Colour
Actual running line of trains	Red
All track warrants	Blue
Special trains, timetable changes, block of line etc	Green
Foul Time occupancies	Black

14.2 Train Controller Relieved

When TWACS is not in use, and a Train Controller is to be relieved, all uncancelled track warrants are recorded by the number on the train control diagram and the record signed by the incoming Train Controller.

Train Controller

1. Record all uncancelled warrants by the number on the diagram for the incoming Train Controller.
2. Forward any TWACS printouts and fully cancelled track warrant pads to the Network Control Manager when requested.
3. If the Addressee has lost a track warrant, the correct track warrant issued to the Addressee must be identified, after which it can be cancelled and reissued.

Incoming Train Controller

4. Sign for all uncancelled track warrants on the diagram when commencing duty.

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Incoming Train Controller

4. Sign for all uncancelled track warrants on the diagram when commencing duty.

RP03 Using a Mis.60

1. Pre-positioning of Rail Vehicles

Before the Mis.60 is issued, rail vehicles for the planned work may be pre-positioned under the following conditions:

Rail Protection Officer

1. Tell the Operator and Train Controller about the rail vehicles and the pre-start locations, before issuing the Mis.60.

Operator

2. Confirm with the Train Controller when stationary at the agreed pre-start location and that the rail vehicles will not move until authorised by the Rail Protection Officer.

Train Controller

3. Issue the Mis.60 to the Rail Protection Officer and list the rail vehicles for the planned work and locations in the special instructions.

Rail Protection Officer

4. When the Mis.60 has been received, repeat the information to the Train Controller.
5. Tell all Operators within the protected work area the Mis.60 number and other particulars held.
6. Confirm with the Train Controller when all Operators have been advised and the protected work area is operational.

2. Issuing and Cancelling the Mis.60

Train Controller

1. Establish from your resources, or the person requesting the Mis.60 the exact purpose for which the permit will be issued and the limits applied.
2. Carry out the checks detailed in the Mis.60 to establish that it is safe to issue the Mis.60.
3. Draw the limits for which the Mis.60 is issued on the train control diagram and write the Mis.60 number next to it.
4. Prepare the Mis.60 ready for issue.
5. Confirm that the correct protection has been applied.
6. Transmit the Mis.60 to the relevant addressees in the following order:
   a. local Signaller,
   b. Rail Protection Officer.
7. Confirm the Addressee correctly repeats the information back.

Addressee

8. Repeat the information on the Mis.60 to the Train Controller.

Train Controller

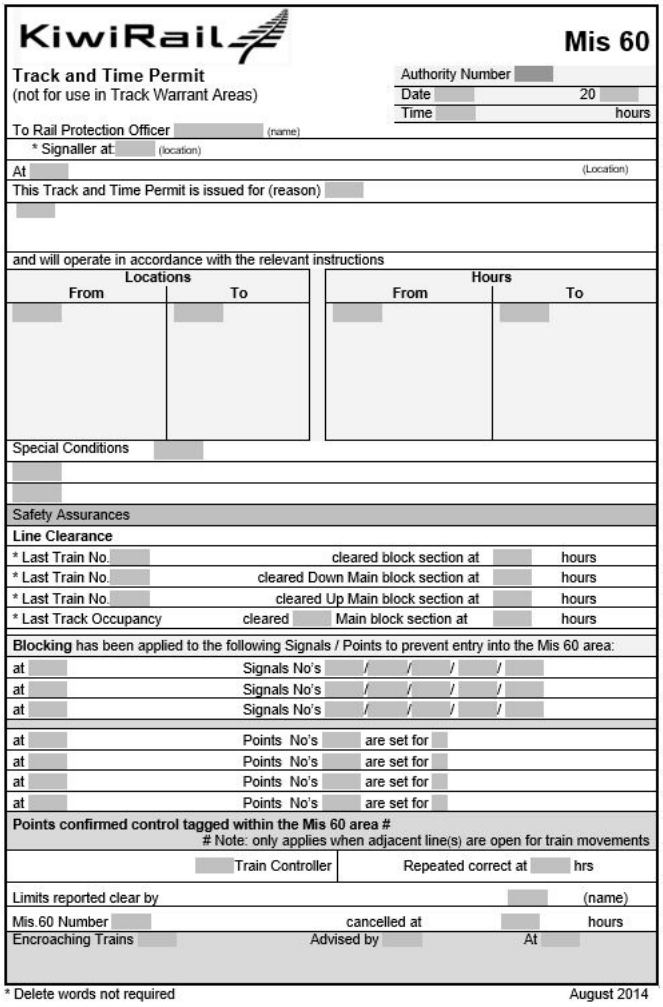
9. When the Addressee advises the line is again clear, endorse on the train control diagram.
10. Fill out the cancellation portion of the Mis.60 and endorse the Mis.60 with the word ‘Cancelled’.

3. Reissuing a Mis.60

When a Mis.60 is in operation and the work area and/or hours are shortened or extended, a new Mis.60 must be issued.

Train Controller

1. Obtain confirmation that the line concerned is safe and clear if the area is changed.
2. Reissue the Mis.60 covering the changed area/hours with the previous permit cancelled on the reissued permit in the portion of the special conditions.
3. Cancel the previous Mis.60 by entering the cancellation time when the reissued permit was issued.
4. Tell all Addressees accordingly.



KiwiRail

Mis 60

Track and Time Permit
(not for use in Track Warrant Areas)

Authority Number
Date 20
Time hours

To Rail Protection Officer (name)
* Signaller at: (location)
At (Location)
This Track and Time Permit is issued for (reason)

and will operate in accordance with the relevant instructions

Locations		Hours	
From	To	From	To

Special Conditions

Safety Assurances

Line Clearance

* Last Train No. cleared block section at hours
* Last Train No. cleared Down Main block section at hours
* Last Train No. cleared Up Main block section at hours
* Last Track Occupancy cleared Main block section at hours

Blocking has been applied to the following Signals / Points to prevent entry into the Mis 60 area:

at Signals No's / / / /
at Signals No's / / / /
at Signals No's / / / /

at Points No's are set for
at Points No's are set for
at Points No's are set for
at Points No's are set for

Points confirmed control tagged within the Mis 60 area #
Note: only applies when adjacent line(s) are open for train movements

Train Controller | Repeated correct at hrs

Limits reported clear by (name)
Mis.60 Number cancelled at hours
Encroaching Trains Advised by At

* Delete words not required August 2014

Example of Mis.60 Form

RP04 Using Compulsory Stop Protection

1. Establishing Protection

1.1 Positioning of Boards

Rail Personnel

1. Place advance warning boards, inner warning boards and compulsory stop boards on each side of the line opposite each other.
2. Place the work area begins and ends board (miniature double-sided board) at the boundary of the safety buffer zone and work area as follows:
   a. single line - on the right side of the track, in the direction of travel
   b. the work area ends side is seen from inside the work area (see Figure 3)
   c. multi-line - between the lines (see Figures 4-6)
3. Ensure the minimum side clearance to all boards is 2.15 metres from the track centre line.

1.2 Multi-Line Area

Rail Personnel

1. Ensure that smaller boards are used centrally between the lines. They should not project more than 850mm above the rail level.

Rail Protection Officer

2. Provide protection on all lines and in both directions (protecting both sides of the work area) against any movements occurring in either direction on the obstructed lines.
3. When one main line is closed (line impassable) and the other line is in use, provide protection on this line in both directions.

1.3 Work Area Call Signs

Rail Personnel

1. Ensure that the call sign for the work area will be displayed as follows:
   a. single line: on the facing right-hand side, compulsory stop board
   b. multi-line areas: on all facing large compulsory stop boards.

1.1 Positioning of Boards

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   b. multi-line areas: on all facing large compulsory stop boards.

2. Before Work Starts

Rail Protection Officer

1. Contact the Train Controller to confirm no trains are approaching before establishing protection.
2. Erect advance warning boards 2000 metres in advance of the outer limits of the work area.
3. Erect inner warning boards 1000 metres in advance of the outer limits of the work area.
4. Erect compulsory stop boards 500 metres in advance of the outer limits of the work area.
5. Erect work area begins and ends boards at the beginning of the work area.
6. Confirm the meterages of compulsory stop boards with the information on the bulletin notifying of the work.

NOTE
The order in which boards are erected may be varied when protection is in place while the boards are being erected.

NOTE
The distance shown for the position of the boards is the minimum distance.

IMPORTANT
The Train Controller must be told of any anticipated or actual delays to the erection of advance warning, inner warning or compulsory stop boards.

NOTE
For permissible modifications to Compulsory Stop Protection Boards, refer to **Train Running and Timetabling Manual, 16. Variation to Compulsory Stop Protection Board Distances.**

3. Removing Protection

Rail Protection Officer

1. Contact the Train Controller to confirm that no trains are approaching.
2. Remove the work area begins and work area ends boards.
3. Remove compulsory stop boards.
4. Remove inner warning boards.
5. Remove advance warning boards.
6. Tell the Train Controller when the line is clear and safe for rail vehicle movements.
7. If the line is still obstructed after the finish time stated on the bulletin, maintain the protection and tell the Train Controller.

IMPORTANT
All Rail Personnel and machines/equipment must be clear in a safe place when work is finished.

NOTE
The order in which boards are removed may be varied when protection is in place while the boards are being removed.

4. Placement Guide

Refer to the **Network Signals, Indicators and Boards Manual** for descriptions and purposes of boards used for compulsory stop protection.

IMPORTANT
Compulsory stop boards must only be passed if the Rail Protection Officer provides authority.

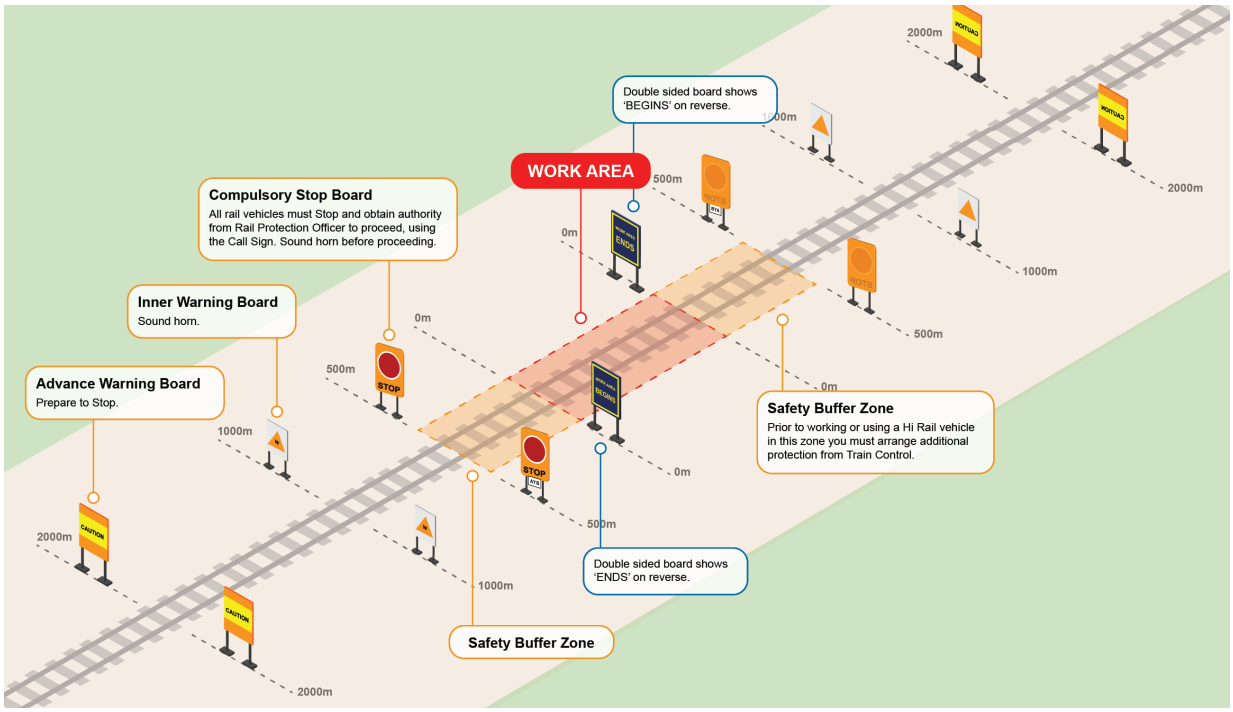


Figure 1: Single Line Areas

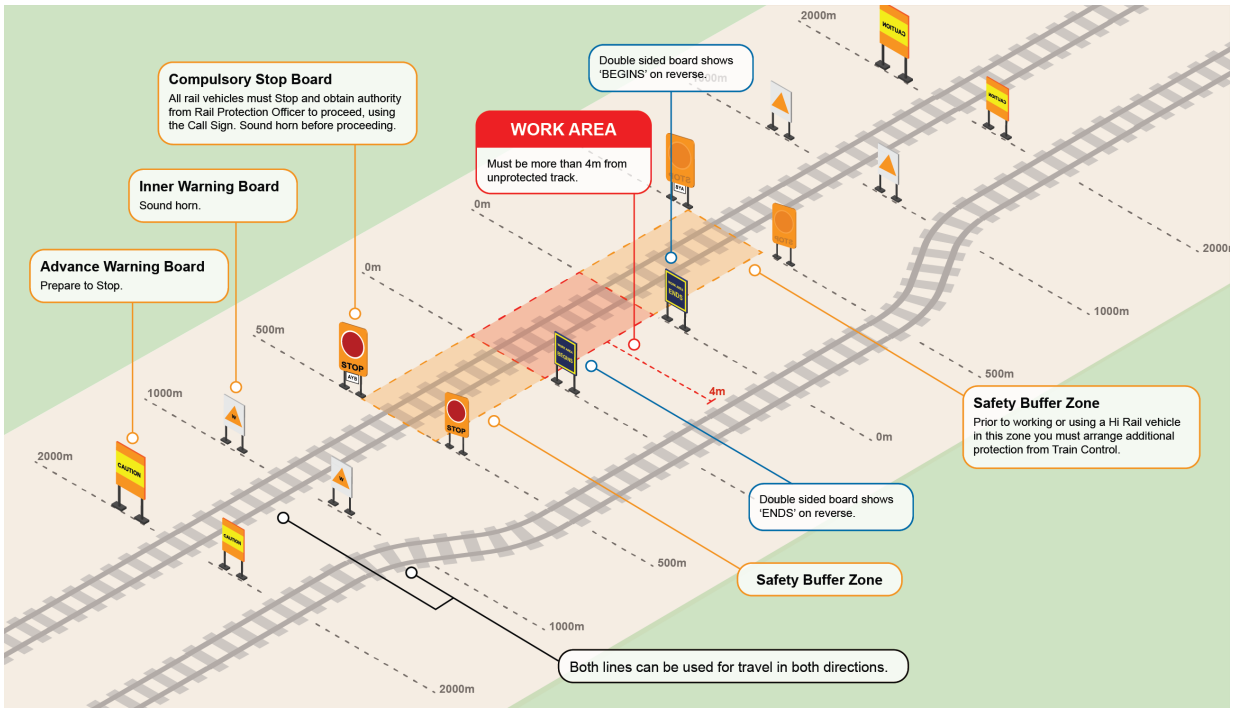


Figure 2: *Multi-Line Signalled Areas - Track Centres Greater than 4 metres*

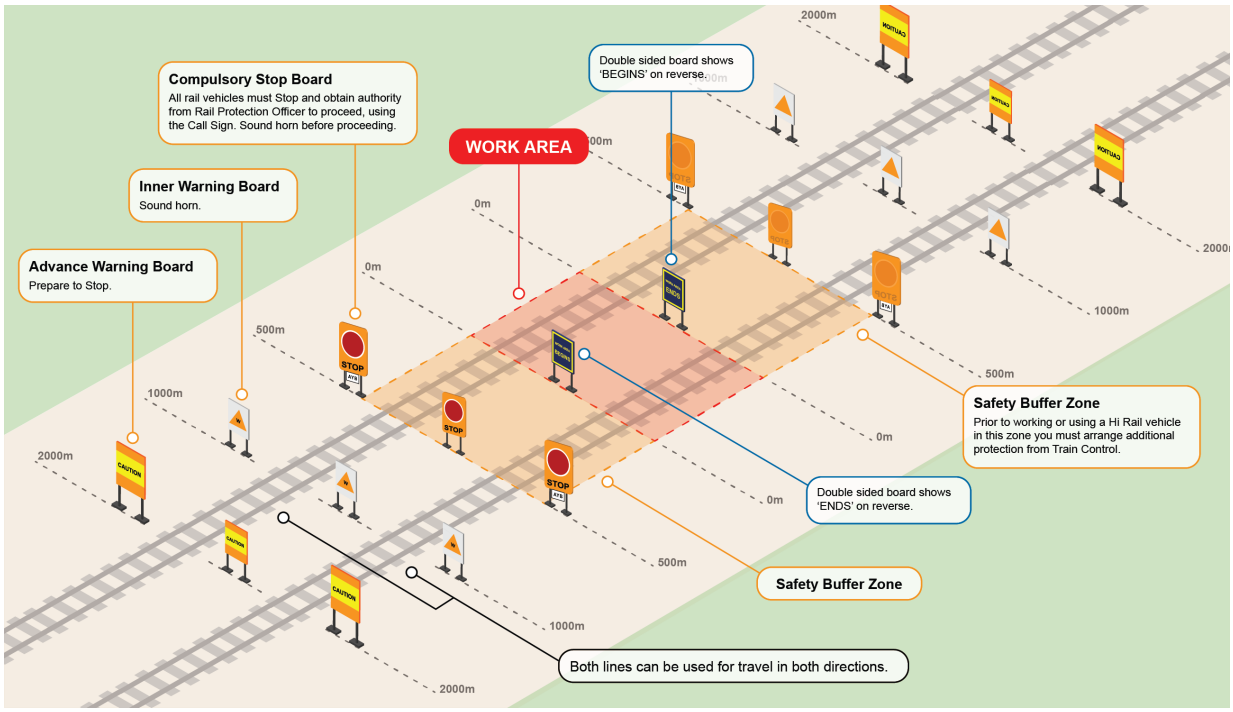


Figure 3: *Multi-Line Areas - Protection for Work Obstructing Both Mains*

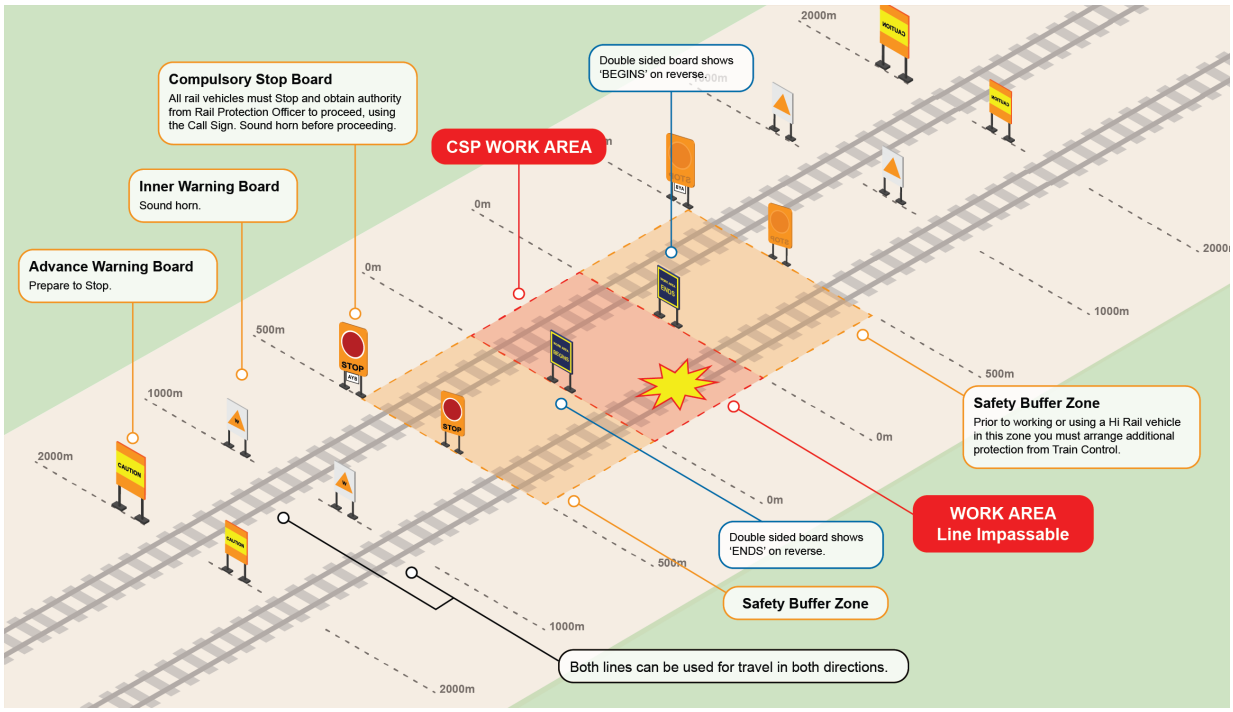


Figure 4: *Wrong Line Running (1) - One Line Impassable and other Line Protected CSB*

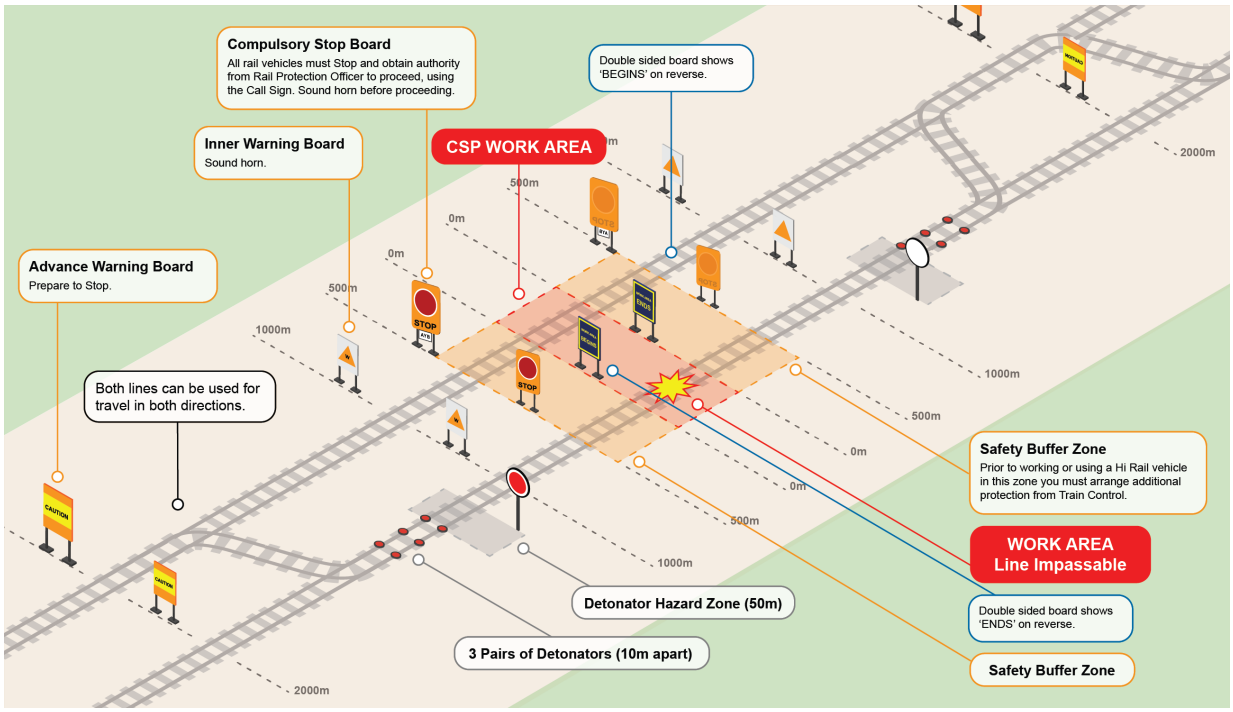


Figure 5:Wrong Line Running (2) - One Line Impassable and other Line Protected CSB

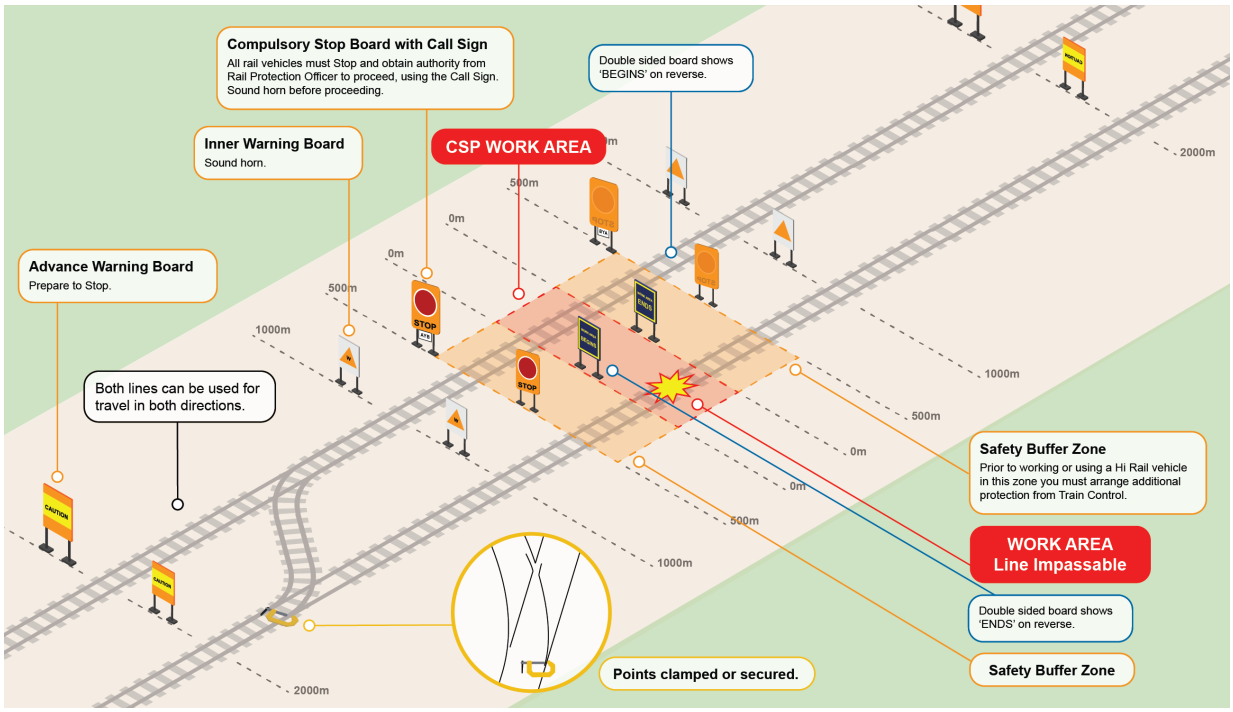


Figure 6: Wrong Line Running (3) - One Line Impassable with Secondary Protection and other Line Protected CSB

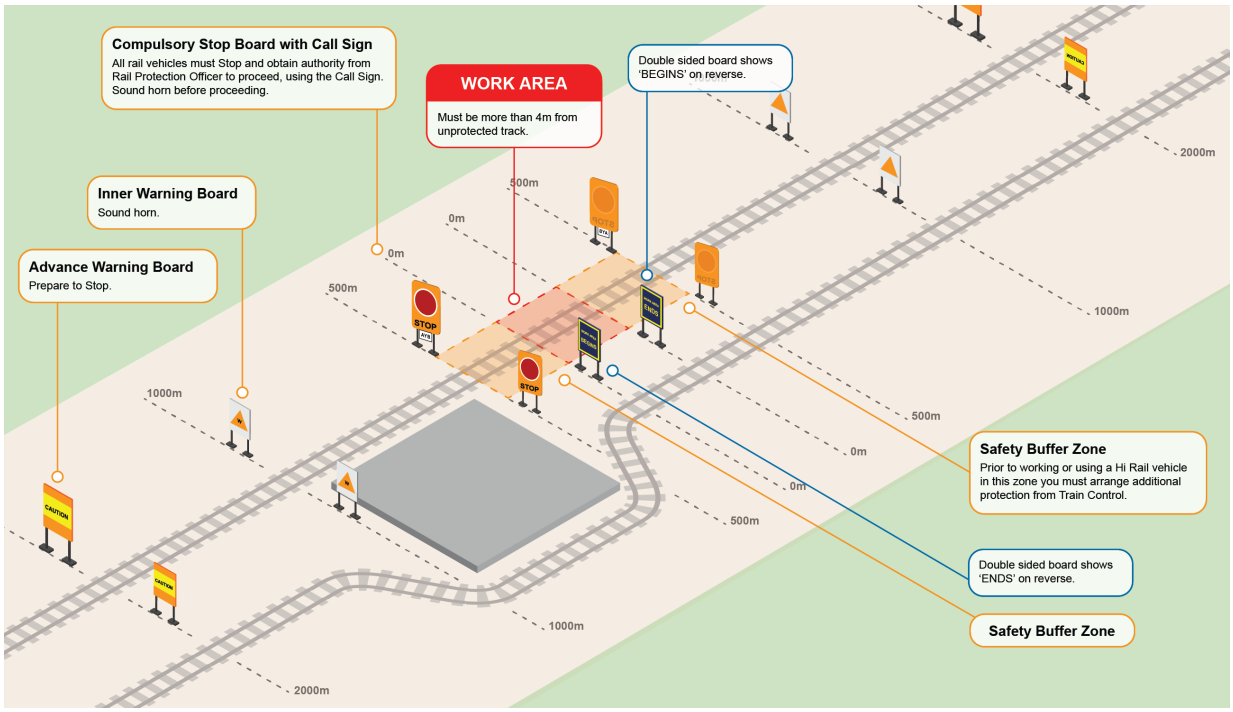


Figure 7:Multi-Line Signalled Areas - Station Island Platform

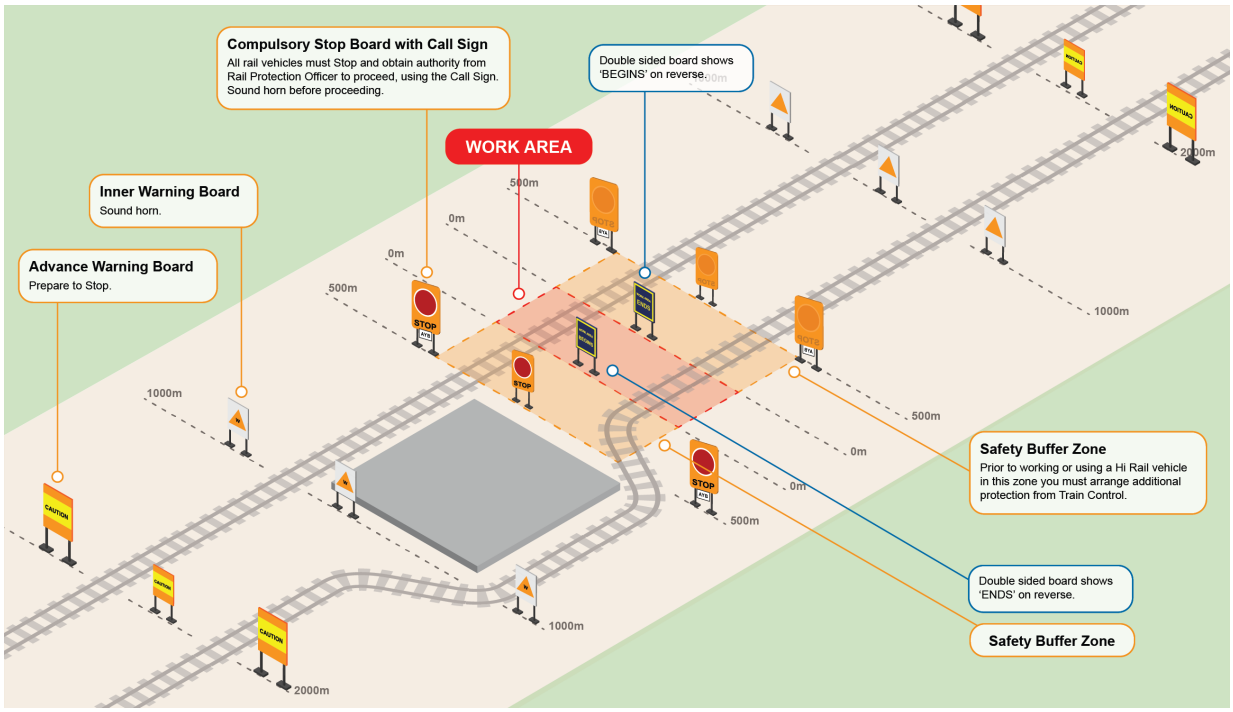


Figure 8:Multi-Line Signalled Areas - Station Island Platform

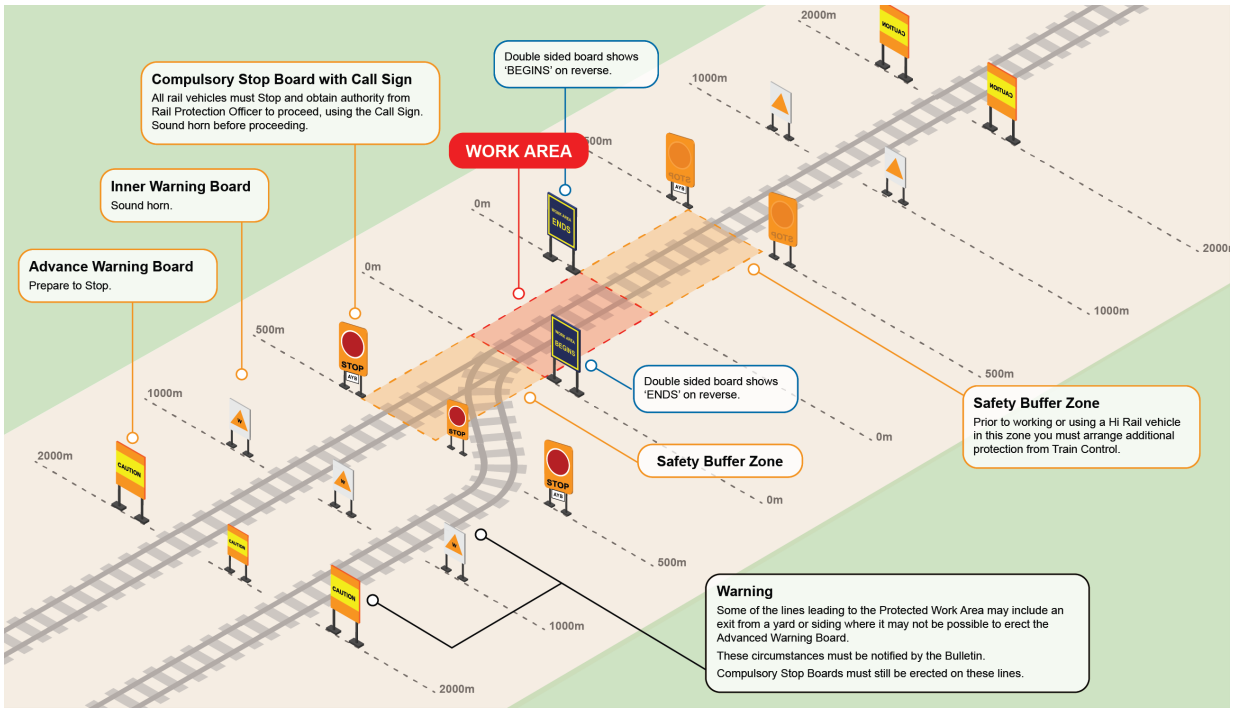


Figure 9:Sidings

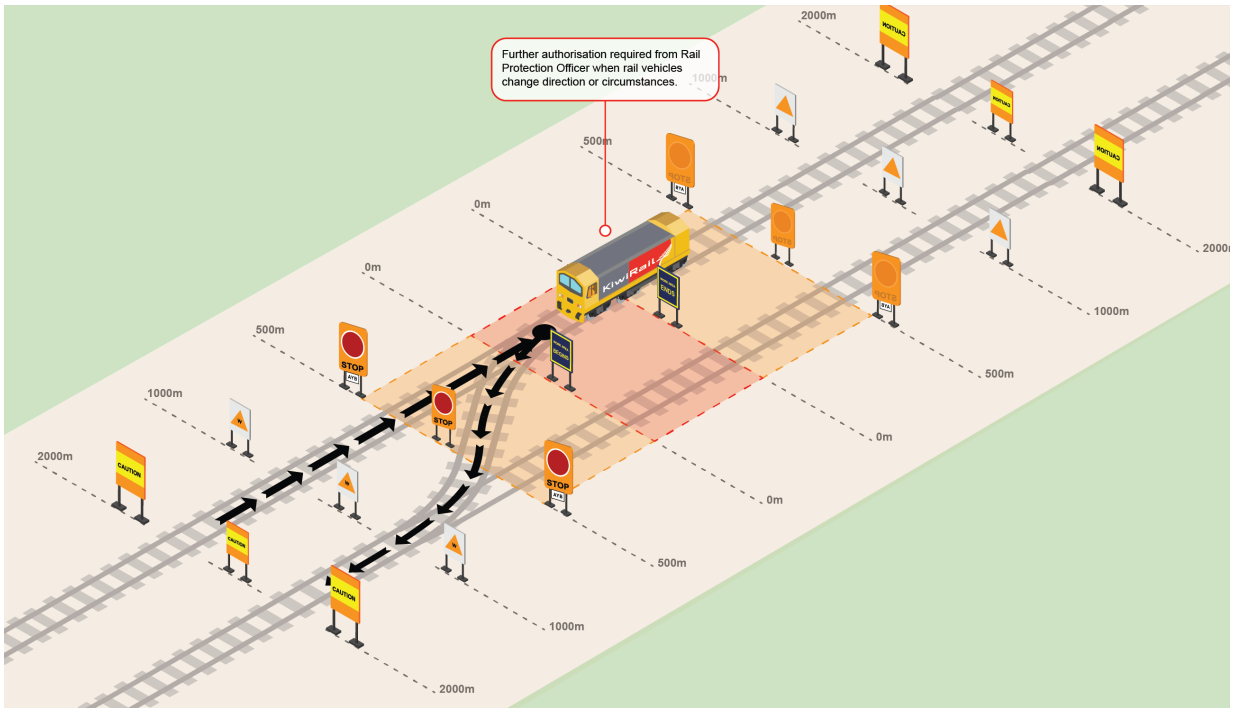


Figure 10:Movement Direction/Circumstances Change

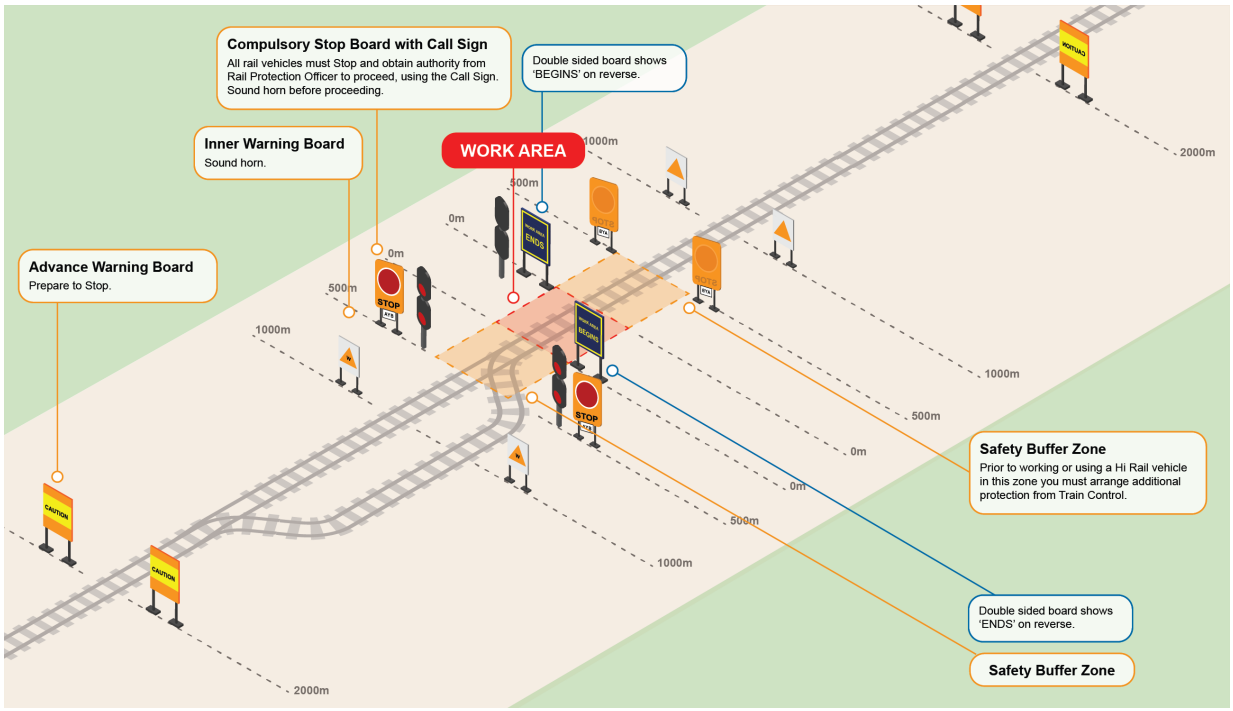


Figure 11:Variations in Location of Danger Stop Signals and Boards

RP05 Using Lockout Zones

1. Introduction

Rail Personnel

1. When planning protection arrangements, the Rail Personnel planning protection must consider the following:
   a. Lockout Zones only control the signals and do not prevent motorised points from moving
   b. additional procedures for securing the points should be applied, such as:
      i. signal blocking by the Train Controller, or
      ii. Using the process in KiwiRail Task Instruction **S-TI-PM-2218 – Security of Turnouts**.

Example of Lockout Control Boxes

2. Operating Instructions

Rail Protection Officer

1. Call the Train Controller and request permission to operate the Lockout Zone(s) switch to the lockout position.
2. Confirm with the Train Controller that the Lockout Zone to be taken will protect the work to be undertaken.

3. Unlock the control box door with a 100 key.
4. Turn the switch to the lockout position.

Train Controller

5. Check the Lockout Zone will protect the work and confirm with the Rail Protection Officer.
6. Confirm that all rail movements are clear of the requested work zone(s).
7. Confirm that signals are in the stop position before sending a release control for the lockout to occur and tell the duration of occupancy granted.

Rail Protection Officer

8. When the Train Controller sends the releasing control, confirm that the lockout indicator flashes red and the normal indicator blacks out.
9. Confirm that the lockout indicator turns to a steady red indication.
10. Attach a hasp and a named personal padlock to the lockout switch.

Train Controller

11. Confirm that the lockout indication for the required Lockout Zone box(es) has changed to a solid purple box on the signal panel.

3. Protection of Rail Movements

The Rail Protection Officer is responsible for all Rail Personnel and equipment within the Lockout Zone.

3.1 Authorising Work to Commence

Rail Protection Officer

1. Before authorising Rail Personnel and machines to work within the Lockout Zone, confirm that the Lockout Zone panel shows the following:
   a. the switch is in the lockout position, and
   b. the lockout indication is a steady red light.

3.2 Rail Vehicle Movements

When a rail vehicle is required to pass through a protected Lockout Zone, the following process must be followed:

Rail Protection Officer

1. Contact all Rail Personnel being protected.
2. Confirm that all Rail Personnel and machines are clear of the track and in a safe place.
3. Tell Rail Personnel about the rail vehicle movement that is to occur.
4. Turn the switch to the normal setting and tell the Train Controller.

Train Controller

5. Observe that the lockout indication is in the normal setting.
6. Signal the rail vehicle movement.

Rail Protection Officer

7. Call the Train Controller after the rail vehicle movement is observed to be clear of the Lockout Zone and request further permission to operate the signal lockout panel to the lockout position.

3.3 Passing of Lockout Signals at Stop

Requirement for Passing Lockout Signals at Stop

#	Requirement
1	When the lockout switch is in the normal setting, refer to **SO03 Exceedance of Authority**.
2	Lockout indication on the signal panel is yellow or blacked out when no work has been authorised, and signals may be passed in accordance with **SO03 Exceedance of Authority**.
3	Lockout indication on the signal panel is yellow or blacked out when work has been authorised, signals may be passed in accordance with the instruction below.

The Train Controller must authorise the passing of lockout signals at stop when work has been authorised under the following conditions:

Train Controller

1. Obtain permission from the Rail Protection Officer before authorising any rail movement.

Rail Protection Officer

2. Contact all Rail Personnel being protected.
3. Tell Rail Personnel about the rail vehicle movement to occur.
4. Confirm that all Rail Personnel and machines are clear of the track and in a safe place.
5. Confirm that the lockout switch has been restored and is in the normal setting, and the normal indication shows a steady yellow light.

3.4 Entering the Protected Work Area

When rail vehicles are required to enter the protected work area.

Train Controller

1. Obtain permission from the Rail Protection Officer before authorising any rail movement.

Rail Protection Officer

2. Contact all Rail Personnel being protected.
3. Tell Rail Personnel about the rail vehicle movement to occur.
4. Confirm that all Rail Personnel and machines are clear of the track and in a safe place.
5. Come to a safe working arrangement with the Operator for their movements into and within the protected work area.
6. Confirm with the Train Controller that the protected work area:
   a. is in a safe state for the movement, and
   b. the Operator fully understands the requirements for their movements into and within the protected work area.

Train Controller

7. Authorise the movement to enter the protected work area in accordance with **SO02 Automatic Signalling Rules, 4. Block Section Entry Authority** and **8. Interlocked Stations.**

3.1 Authorising Work to Commence

Rail Protection Officer

1. Before authorising Rail Personnel and machines to work within the Lockout Zone, confirm that the Lockout Zone panel shows the following:

a. the switch is in the lockout position, and
b. the lockout indication is a steady red light.

3.2 Rail Vehicle Movements

When a rail vehicle is required to pass through a protected Lockout Zone, the following process must be followed:

Rail Protection Officer

1. Contact all Rail Personnel being protected.
2. Confirm that all Rail Personnel and machines are clear of the track and in a safe place.
3. Tell Rail Personnel about the rail vehicle movement that is to occur.
4. Turn the switch to the normal setting and tell the Train Controller.

Train Controller

5. Observe that the lockout indication is in the normal setting.
6. Signal the rail vehicle movement.

Rail Protection Officer

7. Call the Train Controller after the rail vehicle movement is observed to be clear of the Lockout Zone and request further permission to operate the signal lockout panel to the lockout position.

3.3 Passing of Lockout Signals at Stop

Requirement for Passing Lockout Signals at Stop

#	Requirement
1	When the lockout switch is in the normal setting, refer to **SO03 Exceedance of Authority**.
2	Lockout indication on the signal panel is yellow or blacked out when no work has been authorised, and signals may be passed in accordance with **SO03 Exceedance of Authority**.
3	Lockout indication on the signal panel is yellow or blacked out when work has been authorised, signals may be passed in accordance with the instruction below.

The Train Controller must authorise the passing of lockout signals at stop when work has been authorised under the following conditions:

Train Controller

1. Obtain permission from the Rail Protection Officer before authorising any rail movement.

Rail Protection Officer

2. Contact all Rail Personnel being protected.
3. Tell Rail Personnel about the rail vehicle movement to occur.
4. Confirm that all Rail Personnel and machines are clear of the track and in a safe place.
5. Confirm that the lockout switch has been restored and is in the normal setting, and the normal indication shows a steady yellow light.

3.4 Entering the Protected Work Area

When rail vehicles are required to enter the protected work area.

Train Controller

1. Obtain permission from the Rail Protection Officer before authorising any rail movement.

Rail Protection Officer

2. Contact all Rail Personnel being protected.
3. Tell Rail Personnel about the rail vehicle movement to occur.
4. Confirm that all Rail Personnel and machines are clear of the track and in a safe place.
5. Come to a safe working arrangement with the Operator for their movements into and within the protected work area.
6. Confirm with the Train Controller that the protected work area:
   a. is in a safe state for the movement, and
   b. the Operator fully understands the requirements for their movements into and within the protected work area.

Train Controller

7. Authorise the movement to enter the protected work area in accordance with **SO02 Automatic Signalling Rules, 4. Block Section Entry Authority** and **8. Interlocked Stations.**

NOTE
When Lockout Zones are used as secondary protection for a protected work area, authorisation to enter the protected work area must be in accordance with **SO02 Automatic Signalling Rules, 4. Block Section Entry Authority** and **8. Interlocked Stations** for primary protection, in conjunction with **RP05 Using Lockout Zones, 3.4 Entering the Protected Work Area.** This also applies for movements within the protected work area.

4. Lockout Control Box

When the Rail Protection Officer has to leave the lockout control box.

Rail Protection Officer

1. Confirm that the hasp is attached with their named personal padlock to the lockout switch in the lockout position (see **RP05 Using Lockout Zones, 6. Lockout Panel Switch and Indicators Positions** Figure 3) and have their padlock key in their possession during this period.

5. Completion of Protected Work

Rail Protection Officer

1. Confirm that the lockout zone switch is in the normal setting (see **RP05 Using Lockout Zones, 6. Lockout Panel Switch and Indicators Positions** Figure 2).
2. Tell the Train Controller that work is completed and the Lockout Zone switch is in the normal setting.

Train Controller

3. Confirm that the signal lockout indication is normal.

Rail Protection Officer

4. Confirm the Lockout Zone normal indicator is showing a steady yellow light.

5. Close the control box door and secure it with the 100 padlock.
6. Confirm you have the padlock and key.

6. Lockout Panel Switch and Indicators Positions

Figure 2: Normal Setting

A normal indicator shows a steady yellow light indication (the lockout indicator is blacked out), and the switch is in the normal setting. Signals continue to operate under normal control from the train control signal panel.

Figure 3: Lockout Setting

When the lockout light is a steady red light (the normal indicator is blacked out), the switch is in the lockout setting. Signals leading into the Lockout Zone are held at stop.

NOTE
Note the personal padlock in the hasp securing switch shown in Figure 3.

RP06 Using Blocking

1. Authorisation Procedure

1.1 Positively Identify Location

Competent Worker

When meterages are used, the station name or signals on either side of a location must be given to the Signaller / Train Controller to enable the exact location of the meterage to be positively identified in accordance with **RP13 Identification and Verification of Location**.

1.2 Pre-authorisation Checks

Signaller, Train Controller

1. Ensure that the proposed occupancy will not conflict with any rail movements.
2. Confirm the location of conflicting rail movements before the occupancy is authorised.
3. Confirm that the last train is clear of the on-tracking location before authorising the occupancy.
4. Record the details of the occupancy on the following:
   a. train control diagram, or
   b. Mis.5B – Track Occupancy Register for this purpose by the local Signaller.
5. Arrange for signal blocking to prevent trains from entering the occupied area before authorising the occupancy.

1.3 Authorisation Process

Table: Practical examples of the verification procedure in ASR and Midland Line Automatic Signalling areas

Request	Rule requirement before allowing authorisation
On-track on Up Main at 633.5km NIMT Crown Rd Paerata	Last train must have verbally confirmed arrived at or departed Papakura
On-track on Down Main at 606.6km NIMT Oram Rd Mercer - Amokura	Last train must have cleared Amokura Junction by panel observation with blocking fully applied
On-track on Up Main at 621.6 Harrisville Rd between Pukekohe and Mercer	Last train must have verbally confirmed arrived at or departed Pukekohe
On-track on the Up Main at 2.6km Wairarapa Line Kaiwharawhara	Last train must have verbally confirmed arrived at or departed Ngauranga Station Platform
On-track at 60.0km Midland Line between Springfield and Staircase	Last train must have verbally confirmed arrived at or departed Springfield or Staircase
On-track at main inside station limits Staircase	Last train must have verbally confirmed departed clear of station limits Staircase
On-track at 37.0km ECMT between Morrinsville and Kereone	Last train must have arrived at or departed Kereone or Morrinsville by panel observation with blocking fully applied
HRV on loop waiting to follow train into section	Last train has cleared the points giving entry to follow
On-track at 346.0km MNL between 2R and 4R Picton	Last train must have cleared track between 2R and 4L by panel observation with blocking fully applied

Once blocking is verified in accordance with **RP13 Identification and Verification of Location** and in place, the following process must be followed:

Signaller, Train Controller

1. Authorise occupancy by stating:
    a. Addressee
    b. At location
    c. Commencement time
    d. Clearance time
    e. In multi-line areas, state lines being occupied or obstructed
    f. Authority is either:
        i. proceed from – to (locations), or
        ii. work (location), or
        iii. work between (locations).
    g. Last train clear time of the on-tracking location
    h. Section of track verified blocked.
    i. Other information (i.e. includes authority for multiple HRVs)

Addressee

1. Complete a Mis.71 with details issued by the Signaller / Train Controller.
2. Confirm the instructions issued by the Signaller / Train Controller, including:
    a. Addressee
    b. At location
    c. Commencement time
    d. Clearance time
    e. In multi-line areas, tick the relevant box for lines being occupied or obstructed
    f. Authority is either:
        i. proceed from – to (locations) or
        ii. work (location), or
        iii. work between (locations).
    g. Last train clear time, of on tracking location
    h. Section of track blocked.
    i. Other information (i.e. includes authority for multiple HRVs)
3. Read back the instructions to the Signaller / Train Controller.
4. Confirm signal blocking is included in the cross-check.

Signaller, Train Controller

5. Verify or correct the instructions read back by the Addressee.
6. Confirm signal blocking is included in the cross-check.
7. Confirm that the clear time will become the designated clearance time to clear the line.

1.4 Time Extension

When a time extension is required for a track occupancy:

Signaller / Train Controller

1. Authorise time extension by stating:
    a. Addressee
    b. New clearance time
    c. Reconfirm limits of authority.

Addressee

1. Endorse the Mis.71 with the new clearance time provided by the Signaller / Train Controller and cross out the original clearance time.
2. Read back the instructions to the Signaller / Train Controller.

1.1 Positively Identify Location

Competent Worker

When meterages are used, the station name or signals on either side of a location must be given to the Signaller / Train Controller to enable the exact location of the meterage to be positively identified in accordance with **RP13 Identification and Verification of Location**.

1.2 Pre-authorisation Checks

Signaller, Train Controller

1. Ensure that the proposed occupancy will not conflict with any rail movements.
2. Confirm the location of conflicting rail movements before the occupancy is authorised.
3. Confirm that the last train is clear of the on-tracking location before authorising the occupancy.
4. Record the details of the occupancy on the following:
   a. train control diagram, or
   b. Mis.5B – Track Occupancy Register for this purpose by the local Signaller.
5. Arrange for signal blocking to prevent trains from entering the occupied area before authorising the occupancy.

1.3 Authorisation Process

Table: Practical examples of the verification procedure in ASR and Midland Line Automatic Signalling areas

Request	Rule requirement before allowing authorisation
On-track on Up Main at 633.5km NIMT Crown Rd Paerata	Last train must have verbally confirmed arrived at or departed Papakura
On-track on Down Main at 606.6km NIMT Oram Rd Mercer - Amokura	Last train must have cleared Amokura Junction by panel observation with blocking fully applied
On-track on Up Main at 621.6 Harrisville Rd between Pukekohe and Mercer	Last train must have verbally confirmed arrived at or departed Pukekohe
On-track on the Up Main at 2.6km Wairarapa Line Kaiwharawhara	Last train must have verbally confirmed arrived at or departed Ngauranga Station Platform
On-track at 60.0km Midland Line between Springfield and Staircase	Last train must have verbally confirmed arrived at or departed Springfield or Staircase
On-track at main inside station limits Staircase	Last train must have verbally confirmed departed clear of station limits Staircase
On-track at 37.0km ECMT between Morrinsville and Kereone	Last train must have arrived at or departed Kereone or Morrinsville by panel observation with blocking fully applied
HRV on loop waiting to follow train into section	Last train has cleared the points giving entry to follow
On-track at 346.0km MNL between 2R and 4R Picton	Last train must have cleared track between 2R and 4L by panel observation with blocking fully applied

Once blocking is verified in accordance with **RP13 Identification and Verification of Location** and in place, the following process must be followed:

Signaller, Train Controller

1. Authorise occupancy by stating:
   a. Addressee

b. At location
c. Commencement time
d. Clearance time
e. In multi-line areas, state lines being occupied or obstructed
f. Authority is either:
    i. proceed from – to (locations), or
    ii. work (location), or
    iii. work between (locations).
g. Last train clear time of the on-tracking location
h. Section of track verified blocked.
i. Other information (i.e. includes authority for multiple HRVs)

Addressee

1. Complete a Mis.71 with details issued by the Signaller / Train Controller.
2. Confirm the instructions issued by the Signaller / Train Controller, including:
    a. Addressee
    b. At location
    c. Commencement time
    d. Clearance time
    e. In multi-line areas, tick the relevant box for lines being occupied or obstructed
    f. Authority is either:
        i. proceed from – to (locations) or
        ii. work (location), or
        iii. work between (locations).
    g. Last train clear time, of on tracking location
    h. Section of track blocked.
    i. Other information (i.e. includes authority for multiple HRVs)
3. Read back the instructions to the Signaller / Train Controller.
4. Confirm signal blocking is included in the cross-check.

Signaller, Train Controller

5. Verify or correct the instructions read back by the Addressee.
6. Confirm signal blocking is included in the cross-check.
7. Confirm that the clear time will become the designated clearance time to clear the line.

1.4 Time Extension

When a time extension is required for a track occupancy:

Signaller / Train Controller

1. Authorise time extension by stating:
    a. Addressee
    b. New clearance time
    c. Reconfirm limits of authority.

Addressee

1. Endorse the Mis.71 with the new clearance time provided by the Signaller / Train Controller and cross out the original clearance time.
2. Read back the instructions to the Signaller / Train Controller.

2. Track Clearance

Addressee

1. Tell the Signaller / Train Controller when clear of the line to enable blocking to be released when blocking protects the occupancy, and you hold the Mis.71.
2. Confirm the limits of the Blocking that can be lifted as shown on the Mis.71.

Signaller, Train Controller

3. Close off the blocking occupancy on the train control diagram or Signal Box Register.
4. Lift the blocking as advised.
5. Tell the holder of the Mis.71 the limits of blocking being lifted.
6. Advise the time the blocking is lifted.

Addressee

7. Confirm track clearance and state the time.
8. Endorse the Mis.71 and repeat the limits of the blocking lifted.
9. Draw a diagonal line through the Mis.71.

3. Mis.71 and Mis.71 Metro

Mis.71 Metro is designed for use in suburban areas where occupancy time at one site is limited and several requests to complete work at that site will be required.

KiwiRail

Mis 71

Track Occupation Cross Check

Name * _____ day _____ date _____

At _____ Line _____

Commence _____ hours **Clear by** _____ hours

Working in Multi Track areas (tick box(s))
☐ Both Up and Down Mains
☐ Both Main Line and Loop*/Sidings*

Movements in Multi Track areas (tick box(s))
☐ Down Main ☐ Up Main

⚠ **Warning** All adjacent running lines less than (4) metres from your work, must also be protected

☐ **Proceed from** _____ **To** _____

☐ **Work at*/between*** _____ **and** _____

Last Train No._____ cleared on tracking location *at _____hours/ *previous day
_____ (DM*/UM*) _____

☐ Blocking – ⚠ Blocking may vary from authorise limits

Blocking applied
Between _____ and _____

☐ Foul Time (use in areas where Protection by Signals is not possible)

Safety Buffer verified more than 15 minutes ☐ 30 minutes ☐ tick appropriate box as confirmed by Train Control

⚠ **Warning:** *A Train can enter the authorised occupancy territory after the specified "Clear by" time.*

Other Information

_____

_____

Partial Clearing of Limits

Call clear of	**Clear at** (hours)	Blocking applied between locations
		and
		and
		and

Blocking released _____ hrs

RPO use only	**All locked off in Safe Place and Work Site clear at**	hrs

☑ Tick box required * Delete Words not required 01/17

Example of Mis.71 Form

KiwiRail **Track Occupation Cross Check** (Metro Areas only) **Mis 71 Metro**

This form applies to one fixed work site only. **A new form must be filled out for every new site.**

Name		day	/ /	date	
On Site at	hrs	Nature of Work			
At		**Signal* /Points* / km***			
Working at */ between		**Signal* /Points* / km***		**Signal* /Points* / km***	
		and			
Working at */ between		**Signal* /Points* / km***		**Signal* /Points* / km***	
Additional Lines to be Protected					
Working at */ between		**Signal* /Points* / km***		**Signal* /Points* / km***	
Working in multi track area (tick box(s))	Both up and Down Main Lines ☐	Up Main only ☐	Down Main only ☐	Both Main Line and loop / Sidings ☐	
	Warning All of your work and personnel must be greater than four (4) metres from the centre of the unprotected line(s) to use this protection, otherwise these lines must also be protected				
Blocking applied between		**Signal* /Points* / km***		**Signal* /Points* / km***	

Mis 71 Metro Version Two 05/15

Work Area – Work sites Track Occupation crosscheck - continued

Previous Train Cleared Train No.		Blocking Applied	Clear Time	Safe Place	Blocking released	Previous Train Cleared Train No.		Blocking Applied	Clear Time	Safe Place	Blocking released
	hrs	hrs	hrs	hrs	hrs		hrs	hrs	hrs	hrs	hrs
	hrs	hrs	hrs	hrs	hrs		hrs	hrs	hrs	hrs	hrs
	hrs	hrs	hrs	hrs	hrs		hrs	hrs	hrs	hrs	hrs
	hrs	hrs	hrs	hrs	hrs		hrs	hrs	hrs	hrs	hrs
	hrs	hrs	hrs	hrs	hrs		hrs	hrs	hrs	hrs	hrs
	hrs	hrs	hrs	hrs	hrs		hrs	hrs	hrs	hrs	hrs
	hrs	hrs	hrs	hrs	hrs		hrs	hrs	hrs	hrs	hrs
Work Area Clearance at				**hrs**			**day**				**date**

This form must **not** be used for Hi Rail Vehicle or Trolley (motorised) movements

Mis 71 Metro Version Two 05/15

Example of Mis.71 Metro Form

RP07 Using Emergency Protection

1. Placement of Emergency Protection

1.1 Placement of Danger Stop Signal Boards

NOTE
Large boards (760mm x 600mm) are to be used unless boards are placed between running lines or in restricted clearance situations; smaller boards (520mm x 400mm) are to be used.

For a description of danger stop signal boards, refer to the **Network Signals, Indicators and Boards Manual**.

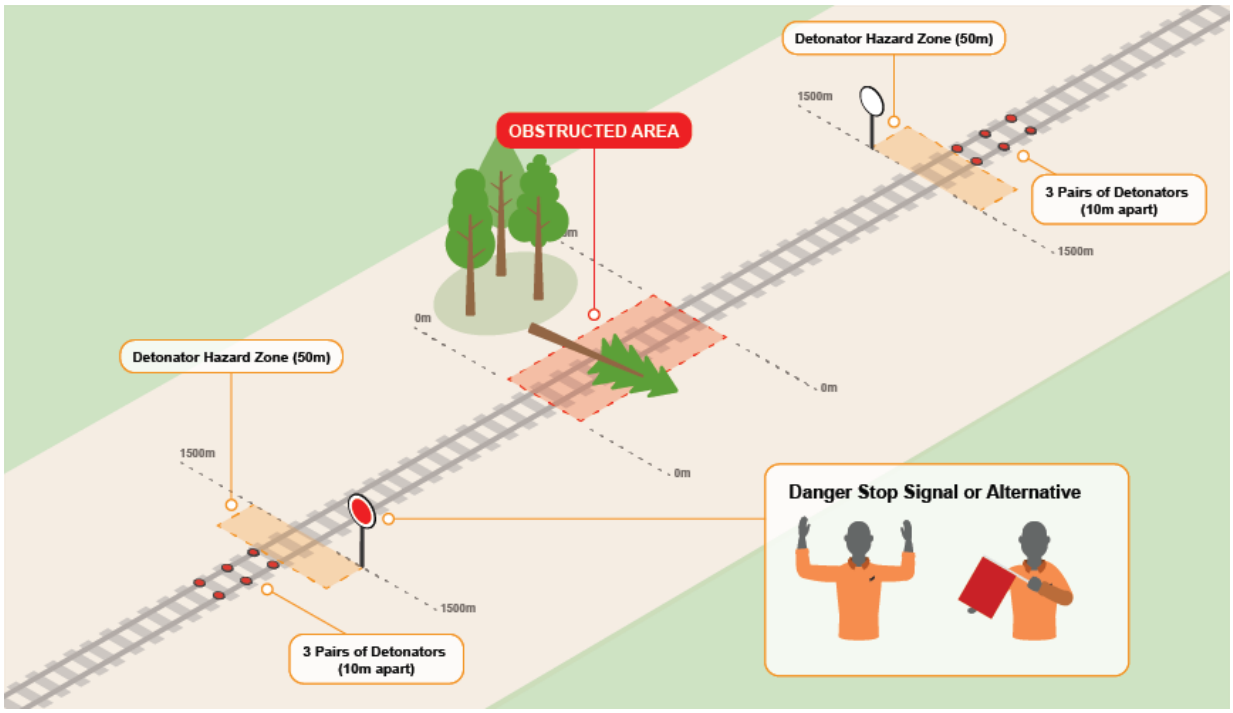
Rail Personnel

1. From the obstruction, travel 1500 metres along the line away from the obstruction.
2. Erect the danger stop signal boards, ensuring the minimum side clearance to all danger stop signal boards is 2.15 metres from the track centre line.
3. Place danger stop signal boards centrally between main lines and ensure they do not project over 850mm above rail level.

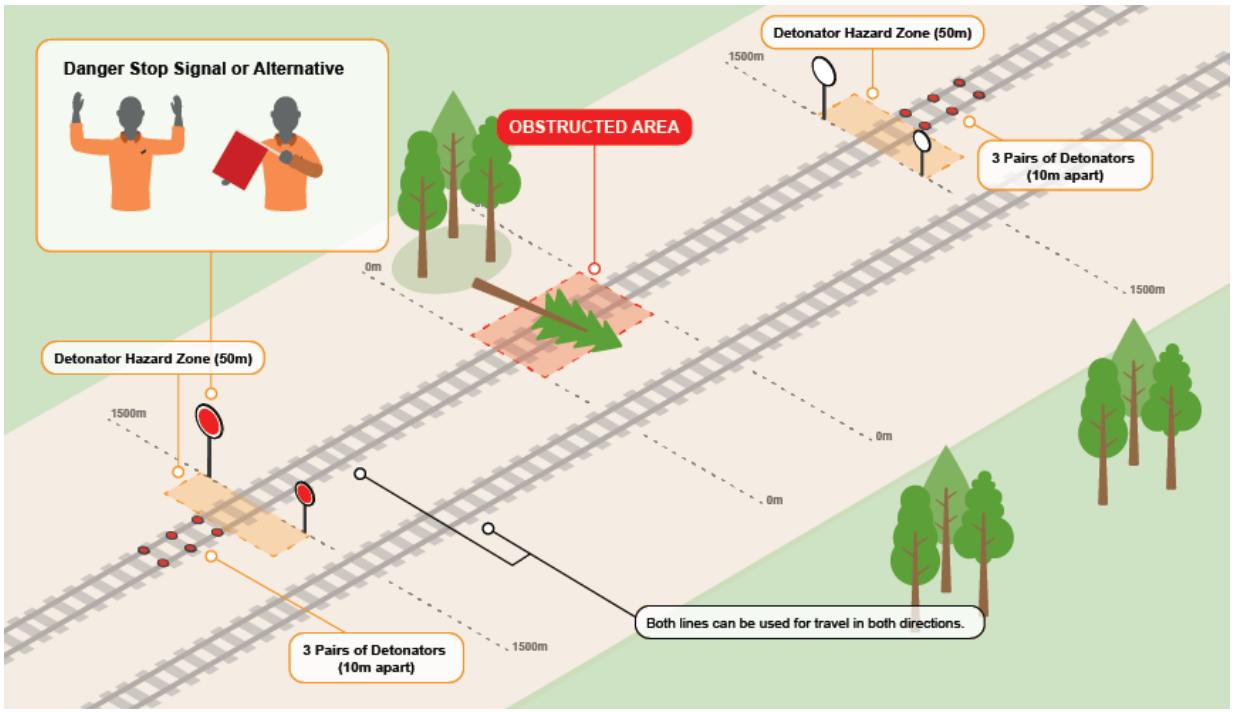
1.2 Placement of Detonators

Rail Personnel

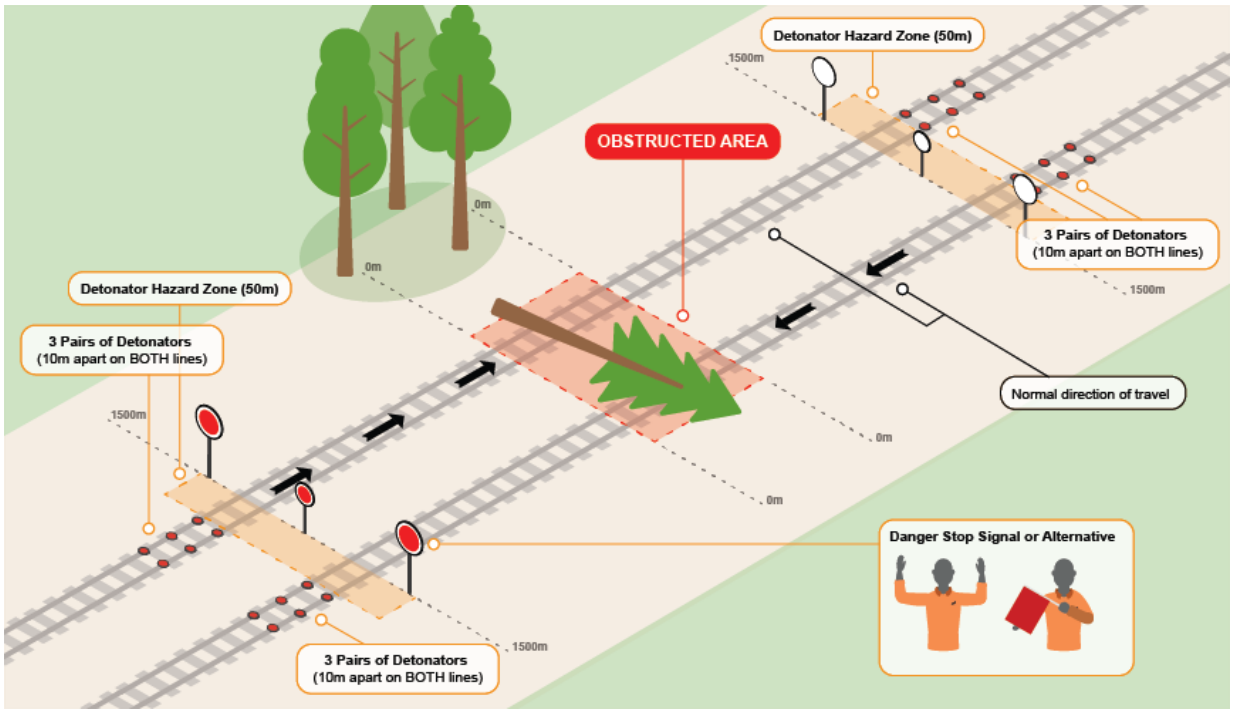
1. If danger stop signal boards:
   a. have not been erected, travel 1550 metres along the line away from the obstruction, or
   b. have been erected, travel 50 metres past the boards away from the obstruction.
2. Place three detonators on each rail, 10 metres apart at 1550 metres from the obstruction.



Example of Single Line Emergency Protection



Example of Multi-Line Emergency protection, One Main Obstructed



Example of Multi-Line Emergency Protection, Both Mains Obstructed

1.1 Placement of Danger Stop Signal Boards

NOTE
Large boards (760mm x 600mm) are to be used unless boards are placed between running lines or in restricted clearance situations; smaller boards (520mm x 400mm) are to be used.

For a description of danger stop signal boards, refer to the **Network Signals, Indicators and Boards Manual**.

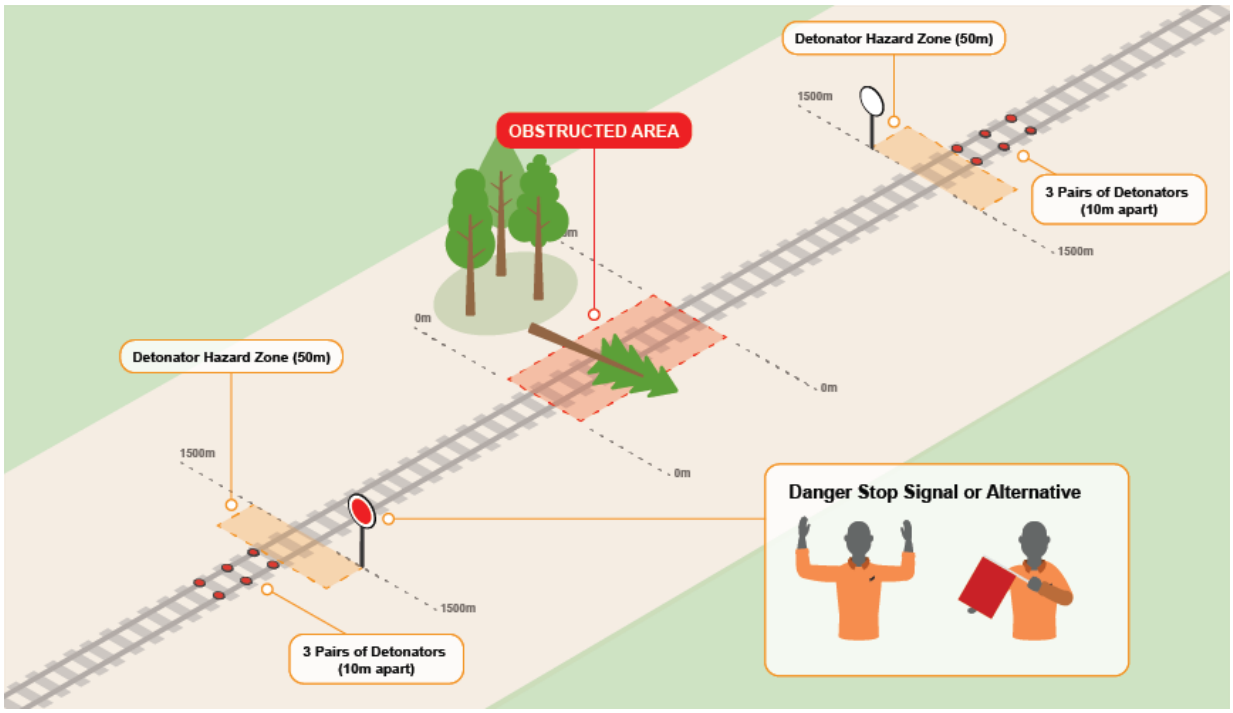
Rail Personnel

1. From the obstruction, travel 1500 metres along the line away from the obstruction.
2. Erect the danger stop signal boards, ensuring the minimum side clearance to all danger stop signal boards is 2.15 metres from the track centre line.
3. Place danger stop signal boards centrally between main lines and ensure they do not project over 850mm above rail level.

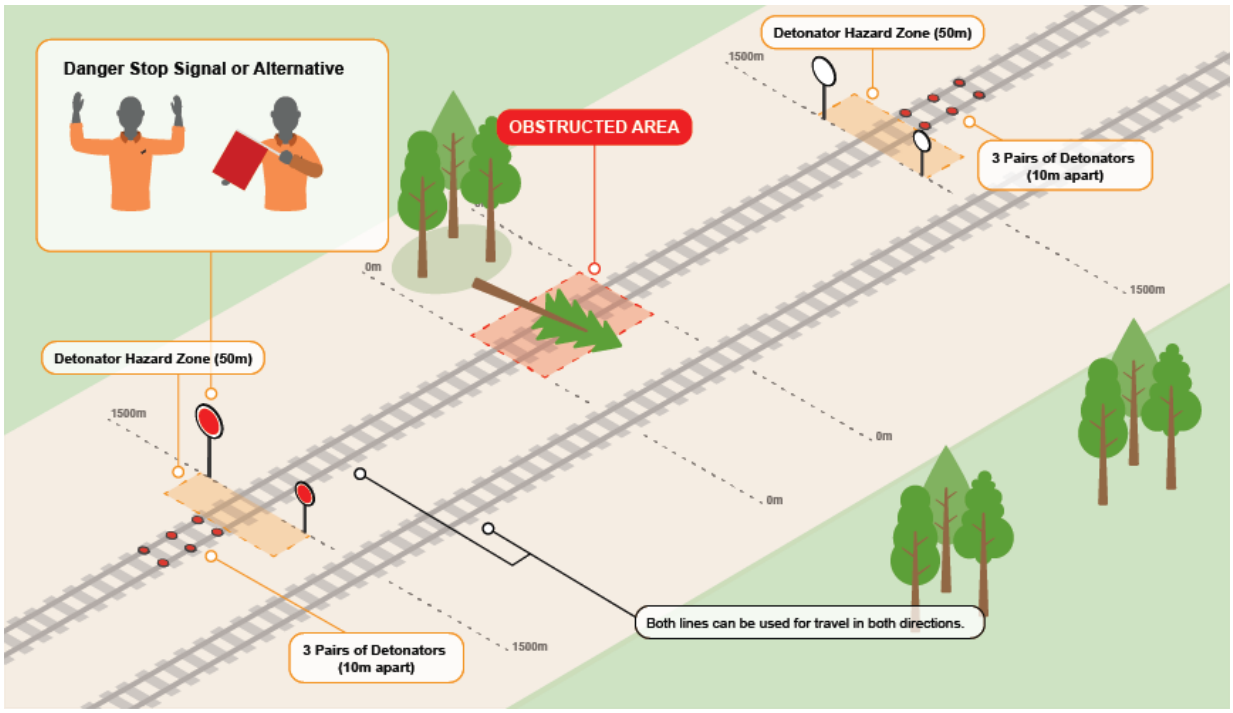
1.2 Placement of Detonators

Rail Personnel

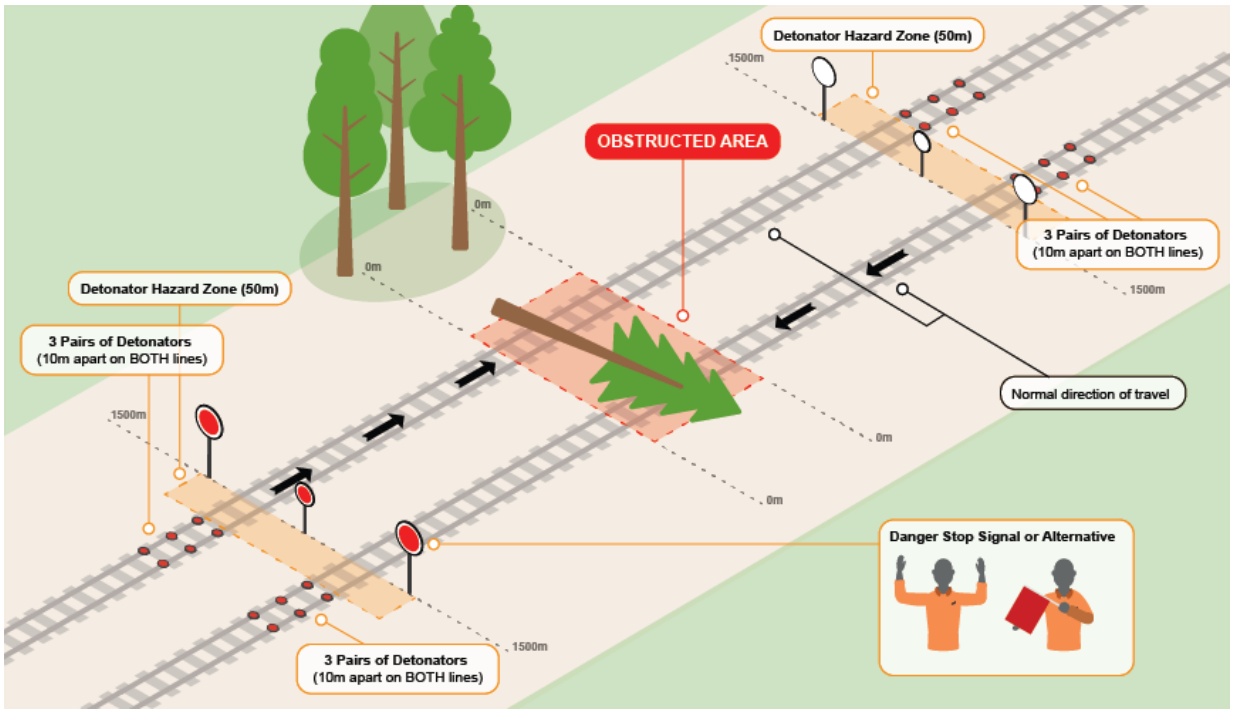
1. If danger stop signal boards:
   a. have not been erected, travel 1550 metres along the line away from the obstruction, or
   b. have been erected, travel 50 metres past the boards away from the obstruction.
2. Place three detonators on each rail, 10 metres apart at 1550 metres from the obstruction.



Example of Single Line Emergency Protection



Example of Multi-Line Emergency protection, One Main Obstructed



Example of Multi-Line Emergency Protection, Both Mains Obstructed

2. Removal of Detonators

Rail Personnel

1. From the detonator closest to the obstruction, unclip each detonator and return them to the original tube.

RP08 Working in Non-Interlocked Areas

1. Introduction

Work in non-interlocked areas will fall under three categories:

- planned work using Form 11
- inspection/occupation on foot using Form 11
- urgent/emergency work.

2. Planning

Competent Worker

1. Complete an Application for Non-Interlocked Protection (Form 11) for protection arrangements for planned work.
2. Ensure the planned work has a marked-up S&I diagram, yard diagram or similar showing the work area and road(s) affected before completing a site safety permit form.
3. Submit the Form 11 for any planned work to the Protection Planner within the appropriate timeframes for a review to be conducted. The Protection Planner will coordinate with affected Rail Personnel for approval.

Protection Planner

4. Coordinate with affected Rail Personnel for approval.
5. Ensure planned work at remote or unattended locations is advised on the daily information bulletin.

3. Issuing Permits

Work Supervisor

1. Provide the approved Form 11 to the Permit Issuer on the day of the planned work when completing the site safety permit.

Permit Issuer

2. When issuing permits:
    a. ensure the person(s) coming into the non-interlocked area knows the hazards and risks
    b. ensure their site induction is current
    c. confirm the task and associated hazards / risks the completed work will introduce to the site
    d. discuss and agree with the Work Supervisor on the protection requirements, considering the task undertaken and associated risks.
    e. ensure protection prevents rail movements from entering the worksite and adjacent roads if required
    f. verbally inform affected Rail Personnel of work to be undertaken and what protection is used. Where available, add to yard diagram whiteboards
    g. ensure all sections of the permit are completed and that both parties have signed
    h. either check yourself or arrange for another Competent Worker familiar with the work environment to check that the correct area / road(s) have been locked out
    i. handover the accountability and responsibility if the work has not been completed at the finish of your shift
    j. inform those working in the non-interlocked area that the site is clear when the work has been completed and all Rail Personnel and protection have cleared the site.

IMPORTANT
If the worksite works outside the agreed area or the correct road(s) have not been locked out, work must be stopped until the correct protection has been established.

NOTE
The Permit Issuer is not accountable and responsible for checking protection arrangements for worksites not within their area of responsibility.

Work Supervisor

3. When you receive the site safety permit:
   a. acknowledge the generic and commonly found hazards listed on the permit
   b. confirm the task and associated hazards/risks the completed work will introduce to the site
   c. discuss and agree on the protection requirements with the Permit Issuer considering the task undertaken and associated risks and record on the site safety permit
   d. ensure protection will prevent rail movements from entering the worksite and any adjacent roads if required
   e. consider any motive power unit(s) within the protected work area
   f. tell the team about the protection requirements and work area
   g. ensure all sections of the site safety permit are completed, and both parties have signed
   h. hand over the accountability and responsibility if the work has not been completed at the finish of your shift
   i. tell the Permit Issuer when the work has been completed and all Rail Personnel and protection have cleared the site.

Person in Charge

4. When you are the person responsible for movements, you must tell all Rail Personnel working under your direction of the worksite, and put protection in place.

4. Urgent/Emergency Work

Work Supervisor

1. Complete a site safety permit in conjunction with the Permit Issuer when urgent or emergency work is required.

Permit Issuer

2. Confirm that the correct protection is used and that the protection covers all roads leading to the worksite and any adjacent road(s) that may be fouled by the activity or vehicles.

5. Equipment

Rail Personnel

You must use the following company-approved equipment if specified in the protection requirements:

- orange high visibility socks
- personal issue padlocks
- points clamps
- stop boards
- derailers

6. Check Sheet

Rail Personnel

The following check sheets must be used during this process.

	Freight Yards/Mechanical Depots
	TR1(a) completed.
	Sufficient equipment (e.g., stop boards, derailers) to undertake work.
	Protection is established as agreed with Permit Issuer.
	The Person in Charge of movements in the yard/depot has been advised.
	Identify any additional hazards at the worksite.
	Work is complete, and all protection and Rail Personnel are clear of the work area.
	The yard/depot advised that protection and Rail Personnel clear.

	Container Transfer Sites
	TR1(b) completed.
	Sufficient equipment (e.g., stop boards, derailers) to undertake work.
	Protection is established as agreed with Permit Issuer.
	The Person in Charge of movements in the CT site has been advised.
	Identify any additional hazards at the worksite.
	Traffic Management Plan.
	Work is complete, and all protection and Rail Personnel are clear of the work area.
	Permit Issuer advised that all protection and Rail Personnel clear.

RP09 Using Foul Time

1. Introduction

Foul Time is a method of using time and distance to create a safety buffer to allow occupancy of the track when one or more of the provisions on the Individual Train Detection Safety Check Sheet (Mis.70R) cannot be complied with, and Blocking is either not available, partly not available, or not able to be used.

2. Requesting Foul Time

Rail Personnel

1. When requesting Foul Time, you must tell the Train Controller details of the proposed occupancy, including:
   a. your identity
   b. state that Foul Time is required
   c. on-tracking location
   d. the lines being occupied or obstructed in multi-line areas
   e. track occupancy area, including the off-tracking location
   f. time needed for the work
   g. reason for requesting Foul Time.

NOTE

You must identify and verify the on and off-tracking locations in accordance with **RP13 Identification and Verification of Location.**

3. Preauthorisation Checks

Train Controller

1. Ensure that the proposed occupancy will not conflict with any rail movements.
2. Confirm the location of conflicting rail movements before the occupancy is authorised.
3. Confirm that the last rail vehicle is clear of the on-tracking location before authorising the occupancy.
4. Record the details of the occupancy on the train control diagram.

IMPORTANT

If a conflicting HRV/track occupation exists, you must apply the protection requirements in accordance with **TS12 Hi-Rail Vehicles.**

NOTE
Refer to Tables in **RP09 Using Foul Time, 5 Verification of Last Rail Vehicle** for further information.

4. Authorising Foul Time

Train Controller

1. Authorise Foul Time by stating:
    a. Addressee
    b. commencement time
    c. clearance time
    d. at location
    e. in multi-line areas, state lines being occupied or obstructed
    f. authority is either:
        i. proceed from - to (locations), or
        ii. work (location), or
        iii. work between (locations)
    g. last rail vehicle clear time of the on-tracking location
    h. safety buffer verified more than 30 minutes
    i. other information (i.e., includes authority for multiple HRVs).

Addressee

2. Complete a Mis.71 with the instructions issued by the Train Controller, including:
    a. Addressee
    b. commencement time
    c. clearance time
    d. at location
    e. in multi-line areas, tick the relevant box for lines being occupied or obstructed
    f. authority is either:
        i. proceed from - to (locations), or
        ii. work (location), or
        iii. work between (locations)
    g. last rail vehicle clear time of the on-tracking location
    h. safety buffer verified more than 30 minutes
    i. other information (i.e., includes authority for multiple HRVs).
3. Read back the instructions to the Train Controller.

Train Controller

4. Verify or correct the instructions that the Addressee has read back.

5. Verification of Last Rail Vehicle

5.1 ASR & Midland Line Automatic Signalling Areas

When the conflicting rail vehicle is a train before granting any track occupancy authority.

Train Controller

1. Verify the last rail vehicle's location to ensure it has passed clear of the section of line or arrived at the platform clear of the on-tracking location.
2. Verify by either:
   a. Automatic signalling panels by:
      i. Observing all track circuits are clear within the on-tracking location when within station limits of an interlocked station, or
      ii. Observing **all track circuits are clear between adjacent stations for any continuously detected block section, or**
      iii. Observing a train clearing an interlocked station.
   b. Confirming by verbal advice from the Operator when the on-tracking location is in dark territory or a non-continuously detected section that:
      i. the rail vehicle has arrived at, or clear of the next station (including Metro platforms).

Table: ASR or Midland Automatic Signalling Areas Examples

Request	Rule Requirement Before Authorisation
On-track on Up Main at 633.5km NIMT Crown Rd Paerata	**The last train must have verbally confirmed arrived at, or departed Papakura**
On-track on Down Main at 606.6km NIMT Oram Rd Mercer – Amokura	**The last train must have cleared Amokura Junction by panel observation with Blocking fully applied**
On-track on Up Main at 621.6km Harrisville Rd between Pukekohe and Mercer	**The last train must have verbally confirmed arrived at, or departed Pukekohe**
On-track on the Up Main at 2.6km Wairarapa Line Kaiwharawhara	**The last train must have verbally confirmed arrived at, or departed Ngauranga Station Platform**
On-track at 60.0km Midland Line between Springfield and Staircase	**The last train must have verbally confirmed arrived at, or departed Springfield or Staircase**
On-track at main inside station limits Staircase	**The last train must have verbally confirmed departed clear of station limits Staircase**
On-track at 37.0km ECMT between Morrinsville and Kereone	**The last train must have arrived at, or departed Kereone or Morrinsville by panel observation with Blocking fully applied**
HRV on loop waiting to follow train into section	**The last train has cleared the points giving entry to follow**
On-track at 346.0km MNL between 2R and 4R Picton	**The last train must have cleared the track between 2R and 4L by panel observation with Blocking fully applied**

5.2 Track Warrant Controlled Areas

When on-tracking within a track warrant section or within station limits (at an interlocked or track warrant station), and the conflicting rail vehicle is a train, before granting any track occupancy authority:

Train Controller

1. Verify the last train's location to ensure it has passed clear of:
   a. the next intermediate board/section of the line
   b. the on-tracking location, or
   c. the station limits
2. Verify the train's location by confirming with verbal advice from the Operator that the train has arrived at, or clear of the next station, and clear of intermediate boards.

Table: Track Warrant Controlled Area Examples

Request	Rule Requirement Before Authorisation
On-track on main inside station limits Kawerau	**The last train must have verbally confirmed departed clear of station limits Kawerau**
On-track between 4R/4L signals Takapau PNGL	**The last train must have verbally confirmed departed clear of station limits Takapau**

Request	Rule Requirement Before Authorisation
On-track at 458.43km MSL Baker Street between Milton and Balclutha	**The last train must have verbally confirmed arrived at or departed Balclutha or clear of Benhar IB**

IMPORTANT

Summarised locations that trains must be clear of are:

- ASR single line blocks - confirm arrival at or clear of next station.
- ASR multi-line - confirm arrival at or clear of next interlocked station or passenger platform.
- Station limits - clear of any fixed controlled signal clear of the on-tracking location.
- Foul Time in TWC areas - confirm arrival at or clear of next station or intermediate board.

IMPORTANT

When a track occupancy request is received from a lube truck, the authorisation must only apply to sections of track that are completely clear of all rail movements. Lube trucks cannot be authorised to follow trains/HRV.

Reason: Lube trucks are required to travel at 50 km/h for the correct application of grease on curves; this greatly increases the risk of being unable to stop short on curves.

NOTE

Pending Blocking is permitted for sections beyond the on-tracking section to follow a train. This instruction does not affect or limit the use of after-the-departure/arrival track warrants.

5.1 ASR & Midland Line Automatic Signalling Areas

When the conflicting rail vehicle is a train before granting any track occupancy authority.

Train Controller

1. Verify the last rail vehicle's location to ensure it has passed clear of the section of line or arrived at the platform clear of the on-tracking location.
2. Verify by either:
   a. Automatic signalling panels by:
      i. Observing all track circuits are clear within the on-tracking location when within station limits of an interlocked station, or
      ii. Observing **all track circuits are clear between adjacent stations for any continuously detected block section, or**
      iii. Observing a train clearing an interlocked station.
   b. Confirming by verbal advice from the Operator when the on-tracking location is in dark territory or a non-continuously detected section that:

i. the rail vehicle has arrived at, or clear of the next station (including Metro platforms).

Table: ASR or Midland Automatic Signalling Areas Examples

Request	Rule Requirement Before Authorisation
On-track on Up Main at 633.5km NIMT Crown Rd Paerata	**The last train must have verbally confirmed arrived at, or departed Papakura**
On-track on Down Main at 606.6km NIMT Oram Rd Mercer – Amokura	**The last train must have cleared Amokura Junction by panel observation with Blocking fully applied**
On-track on Up Main at 621.6km Harrisville Rd between Pukekohe and Mercer	**The last train must have verbally confirmed arrived at, or departed Pukekohe**
On-track on the Up Main at 2.6km Wairarapa Line Kaiwharawhara	**The last train must have verbally confirmed arrived at, or departed Ngauranga Station Platform**
On-track at 60.0km Midland Line between Springfield and Staircase	**The last train must have verbally confirmed arrived at, or departed Springfield or Staircase**
On-track at main inside station limits Staircase	**The last train must have verbally confirmed departed clear of station limits Staircase**
On-track at 37.0km ECMT between Morrinsville and Kereone	**The last train must have arrived at, or departed Kereone or Morrinsville by panel observation with Blocking fully applied**
HRV on loop waiting to follow train into section	**The last train has cleared the points giving entry to follow**
On-track at 346.0km MNL between 2R and 4R Picton	**The last train must have cleared the track between 2R and 4L by panel observation with Blocking fully applied**

5.2 Track Warrant Controlled Areas

When on-tracking within a track warrant section or within station limits (at an interlocked or track warrant station), and the conflicting rail vehicle is a train, before granting any track occupancy authority:

Train Controller

1. Verify the last train's location to ensure it has passed clear of:
   a. the next intermediate board/section of the line
   b. the on-tracking location, or
   c. the station limits
2. Verify the train's location by confirming with verbal advice from the Operator that the train has arrived at, or clear of the next station, and clear of intermediate boards.

Table: Track Warrant Controlled Area Examples

Request	Rule Requirement Before Authorisation
On-track on main inside station limits Kawerau	**The last train must have verbally confirmed departed clear of station limits Kawerau**
On-track between 4R/4L signals Takapau PNGL	**The last train must have verbally confirmed departed clear of station limits Takapau**
On-track at 458.43km MSL Baker Street between Milton and Balclutha	**The last train must have verbally confirmed arrived at or departed Balclutha or clear of Benhar IB**

IMPORTANT

Summarised locations that trains must be clear of are:

- ASR single line blocks - confirm arrival at or clear of next station.
- ASR multi-line - confirm arrival at or clear of next interlocked station or passenger platform.
- Station limits - clear of any fixed controlled signal clear of the on-tracking location.
- Foul Time in TWC areas - confirm arrival at or clear of next station or intermediate board.

IMPORTANT

When a track occupancy request is received from a lube truck, the authorisation must only apply to sections of track that are completely clear of all rail movements. Lube trucks cannot be authorised to follow trains/HRV.

Reason: Lube trucks are required to travel at 50 km/h for the correct application of grease on curves; this greatly increases the risk of being unable to stop short on curves.

NOTE

Pending Blocking is permitted for sections beyond the on-tracking section to follow a train. This instruction does not affect or limit the use of after-the-departure/arrival track warrants.

6. Altered Circumstances

When circumstances alter after granting Foul Time, which would allow a rail vehicle to conflict with the designated clearance time:

Train Controller

1. Arrange to hold the rail vehicle until:
   a. it is confirmed that the Addressee is clear and in a safe place, or
   b. the clearance time has elapsed.

Addressee

2. If requested, tell the Train Controller when you are clear and in a safe place.

7. Completed Forms

Addressee

1. When the Mis.71 is completed, draw a diagonal line through the form.
2. Keep the completed booklet for one month before disposal.

KiwiRail

Mis 71

Track Occupation Cross Check

Name * _____ day _____ date _____

At _____ Line _____

Commence _____ hours **Clear by** _____ hours

Working in Multi Track areas (tick box(s))
☐ Both Up and Down Mains
☐ Both Main Line and Loop*/Sidings*

Movements in Multi Track areas (tick box(s))
☐ Down Main ☐ Up Main

⚠ **Warning** All adjacent running lines less than (4) metres from your work, must also be protected

☐ **Proceed from** _____ **To** _____

☐ **Work at*/between*** _____ **and** _____

Last Train No._____ cleared on tracking location *at _____hours/ *previous day
_____ (DM*/UM*) _____

☐ Blocking – ⚠ Blocking may vary from authorise limits

Blocking applied
Between _____ and _____

☐ Foul Time (use in areas where Protection by Signals is not possible)

Safety Buffer verified more than 15 minutes ☐ 30 minutes ☐ tick appropriate box as confirmed by Train Control

⚠ **Warning:** *A Train can enter the authorised occupancy territory after the specified "Clear by" time.*

Other Information

_____

_____

Partial Clearing of Limits

Call clear of	**Clear at** (hours)	Blocking applied between locations
		and
		and
		and

Blocking released _____ hrs

RPO use only	**All locked off in Safe Place and Work Site clear at**	hrs

☑ Tick box required * Delete Words not required 01/17

Example of Mis.71 Form

RP10 Using Individual Train Detection

1. Introduction

CAUTION
The use of Individual Train Detection (ITD) is prohibited:

- in tunnels
- on bridges where there may not be an easily accessible safe place
- in protected work areas, except when directed by Rail Protection Officer for secondary protection purposes.

ITD is a risk-based assessment process to be used for occupancy of main lines, crossing loops, and all lines within interlocked areas when:

- moving on foot (e.g., inspections, investigations, site familiarisations)
- making minor corrections (e.g., replacing a fish-plate bolt), which will not interfere with the safe running of trains
- crossing the line at a maintenance crossing.

2. Commencing Work

Competent Worker

1. Check the information on the relevant bulletins to confirm that no work is planned that may impact your ability to use ITD.
2. Check the **Local Network Instructions** to confirm the maximum authorised speed for the area and the local snake map when completing the Mis.70R.
3. Check that your required KLE competencies are current and do not affect your ability to perform ITD.
4. Refer to the relevant S&I diagrams for where you will be performing ITD.
5. Complete all sections of the Mis.70R as required and obtain a higher level of protection if impossible.

3. After Work is Complete

Competent Worker

1. Remove all tools and equipment from the railway corridor to the assigned safe place.
2. Complete the Mis.70R by drawing a diagonal line through the page to indicate that ITD is no longer used.

NOTE
The Mis.70R must be kept for one month before being disposed of.

NOTE
These provisions will not apply to Train Operating Personnel engaged with train operational tasks or working behind a substantial barrier.

4. Mis.70R Form

A Mis.70R is used by Rail Personnel with a Licence to Operate in ITD.

KiwiRail

Mis 70R

This form must be completed when working alone or with an Observer, when encroaching within two outstretched arm lengths of the edge of the rail.

Individual Train Detection Safety Check

(Rule 917 only)

Name _____

Date _____ **Time** _____

Location/km _____

Between _____ **and** _____

(rail location) *(rail location)*

You must be in your Safe Place 15 seconds before the arrival of rail vehicles

Maximum Authorized Speed for area in Km/h	Required Sight Distance in Metres		
	Alone	Tick box	Observer
10	40		60
25	100		140
40	170		220
50	200		280
60	250		340
70	300		380
80	350		440
90	400		500
100	450		560
110	500		620

Tick the appropriate box alongside the maximum speed which rail vehicles can run at this locality.

If you are unfamiliar with the maximum speed that applies at this locality then you must use the maximum line speed of 110km/h.

If in doubt, contact KiwiRail Area Infrastructure Office. (details on last page of book)

continued on page below.

Emergency - call 0800 808 400 **02/17**

Example of Mis.70R Front

KiwiRail

Mis 70R

Individual Train Detection Safety Check

1 I can continually see the track clearly in both directions for the required distance

☐ Yes ☐ No (tick yes if Observer(s) being used)

2. I can clearly hear approaching rail vehicles, at all times.
(no power-operated tools or maintenance vehicles in use within hearing range)

☐ Yes ☐ No (tick yes if Observer(s) being used)

Note: Observer(s) are used to ensure that vision/hearing requirements are complied with, when the task being carried out restricts vision/hearing.

Observer's name(s) .....

.....

3. I am using ITD to only carry out:

Inspections on foot **Or**
Using light tools **Or**
Crossing the railway track at a maintenance crossing, with a road vehicle

☐ Yes ☐ No

4. I have identified a **Safe Place to be in** 15 seconds before any rail vehicle arrives

☐ Yes ☐ No *(use greater sighting distance when obsever is being used)*

All the answers above are in the non-shaded boxes

☐ I can now use ITD – Rule 917

Or

If any of the answers above in a grey-shaded box,

Stop - I am unable to enter the Rail Corridor until either:

☐ A higher level of Rail Protection is being used

Or

☐ My Work Planner or Supervisor have put a higher level of protection in place

Warning,
Rail vehicles **may approach** from any direction, at any time.

Emergency - call 0800 808 400 **02/17**

Example of Mis.70R Back

RP11 MTMV Operations

1. Protection Arrangements

Operator

When berthed / stabled or working within station limits or in a siding:

1. Take all practicable steps to protect the MTMVs from collisions, including but not limited to the following:
   a. setting a diverging route
   b. erecting a danger stop disc/light and derailer
   c. signal blocking (where available).

If stabled unattended on loops (not controlled by a Signaller) in TWC or Midland Line automatic signalling areas, you must also:

1. Isolate the main line points and secure them in normal to protect the machine(s).
2. Provide the Train Controller with a certificate from the Competent Worker securing the points.

NOTE

When required to enter a switch lock siding to cross a rail vehicle, you must obtain permission from the Train Controller.

2. Protection Requirements

Table: When Working

	ASR	Midland Line Appendix	Track Warrant	Level Crossings	Operator Controlled Territory
Axle load 10t and over with four or more axles	TS03 TS04 TS06	TS03 TS04	TS04 SO08	GR04	Permit TS08
Axle load Under 10t and or less than four axles	TS03 TS04 TS06	TS03 TS04	TS04 SO08	GR04	Permit TS08

Table: When Travelling as a Train

	ASR	Midland Line Appendix	Track Warrant	Level Crossings
10t and over with four or more axles	Signals	Signals Mis.51	Track Warrant	GR04 Max speed 25 km/h
Under 10t and or less than four axles	Signals with signal blocking applied	Signals Mis.51 No conflicting or following Mis.51 allowed	Track Warrant	GR04 Max speed 10 km/h

Table: When Working En Route While Travelling

	ASR	Midland Line Appendix	Track Warrant	Level Crossings
10t and over with four or more axles	TS06	Mis.51 work in either direction. No conflicting or following Mis.51 allowed	Track Warrant	GR04 Max speed 25 km/h
Under 10t and or less than four axles	TS06	Mis.51 work in either direction. No conflicting or following Mis.51 allowed	Track Warrant	GR04 Max speed 10 km/h

RP12 HRV Operations

1. Protected Work Area (PWA)

When an HRV is required to move through a PWA.

Driver

1. Contact the Rail Protection Officer from the limits of the PWA.
2. Remain stationary until the Rail Protection Officer provides authority to enter the PWA.
3. Record details of worksites advised by the Rail Protection Officer on the Mis.71, Mis.88 or elsewhere (if travelling on a Mis.88 held by the Rail Protection Officer).
4. Contact each Site Protector and gain authority before entering each worksite (applies for multi-worksites only).
5. Gain authority from the Rail Protection Officer before exiting the worksite (applies for multi-worksites only).

Rail Protection Officer

6. Tell the Driver the location of the worksite(s) before authorising the HRV to enter the protected work area.
7. When you hold a track warrant, before authorising the movement to enter the protected work area, all rail movements travelling through the PWA must be:
   a. locked on (applies for single worksites), or
   b. treated as mobile worksites and protected accordingly (applies for multi-worksites).

2. Existing Track Occupancy

An HRV or Trolley requires an authority to move through an existing track occupancy.

Signaller

1. Tell the Driver the details of the conflicting track occupancy by stating:
   a. the radio ID / phone of the Rail Protection Officer, and
   b. the specific limits of the conflicting occupancy.
2. Confirm the Driver has a safe working arrangement with the Rail Protection Officer to permit travel through the track occupancy.
3. Apply double blocking to the conflicting area (where available).
4. Authorise HRV / Trolley movement.

Driver

5. Prearrange a safe working arrangement with the Rail Protection Officer regarding the conflicting track occupancy.
6. Endorse the Mis.71 with the details of the conflicting track occupancy.
7. Repeat the information back to the Signaller.
8. Stop short of the common occupancy area (at a location to enable off-tracking if required).
9. Contact the Rail Protection Officer and confirm the safe working arrangement to allow the HRV to travel through the common occupancy area.

IMPORTANT
HRVs / Trolleys intending to travel through a conflicting occupancy must be excluded from additional vehicles on the Mis.71 for the first occupancy. The second occupancy must arrange a safe working arrangement and complete their own track call.

3. Conflicting Occupancy Request

When a track occupancy request conflicts with an existing HRV occupancy.

Signaller

1. Tell the Rail Protection Officer the details of the conflicting track occupancy by stating:
   a. the radio ID / phone of the Driver, and
   b. the specific limits of the conflicting occupancy.
2. Confirm the Rail Protection Officer has a safe working arrangement with the Driver to permit travel through the track occupancy.
3. Apply double blocking to the conflicting area (where available).
4. Authorise the track occupancy.

Rail Protection Officer

5. Prearrange a safe working arrangement with the Driver to permit travel through the common occupancy.
6. Endorse the Mis.71 with the details of the conflicting track occupancy.
7. Repeat the information back to the Signaller.
8. Before commencing the track occupancy:
   a. Contact the Driver and verify their location.
   b. Tell the Driver of your intention to commence track occupancy.

Driver

9. Stop short of the common occupancy area (at a location to enable off-tracking if required).
10. Contact the Rail Protection Officer and confirm the safe working arrangement to allow the HRV to travel through the common occupancy area.

KiwiRail

Mis 71

Track Occupation Cross Check

Name * _____ day _____ date _____

At _____ Line _____

Commence _____ hours | **Clear by** _____ hours

Working in Multi Track areas (tick box(s)) ☐ Both Up and Down Mains ☐ Both Main Line and Loop*/Sidings*

Movements in Multi Track areas (tick box(s)) ☐ Down Main ☐ Up Main

⚠ **Warning** All adjacent running lines less than (4) metres from your work, must also be protected

☐ **Proceed from** _____ **To** _____

☐ **Work at*/between*** _____ **and** _____

Last Train No._____ cleared on tracking location *at _____hours/ *previous day

._____ (DM*/UM*) _____

☐ Blocking – ⚠ Blocking may vary from authorise limits

Blocking applied
Between _____ and _____

☐ Foul Time (use in areas where Protection by Signals is not possible)

Safety Buffer verified more than 15 minutes ☐ 30 minutes ☐ tick appropriate box as confirmed by Train Control

⚠ **Warning:** *A Train can enter the authorised occupancy territory after the specified "Clear by" time.*

Other Information

_____

_____

Partial Clearing of Limits

Call clear of	**Clear at** (hours)	Blocking applied between locations
		and
		and
		and

Blocking released _____ hrs

RPO use only	All locked off in Safe Place and Work Site clear at	hrs

☑ Tick box required * Delete Words not required 01/17

Example of Mis.71 Form

KiwiRail

Track Warrant **Mis. 88**

Track Warrant Number _____ day _____ (Date) _____

To Driver / Locomotive Engineer / Operator / Rail Protection Officer *
(Designation, Name, Train, etc.)

At _____

1. ☐ Track Warrant Number _____ is cancelled
2. ☐ After *departure arrival of _____ *from at _____
3. ☐ Proceed from _____ to _____
4. ☐ Work between _____ and _____
5. ☐ Enter _____ at _____ *to cross
6. ☐ Main line reported clear _____ *(except for _____)
7. ☐ No other warrants issued between these limits after _____
8. ☐ _____ is verified clear of _____
9. ☐ Not in use
10. ☐ Call Train Control at _____
11. ☐ Clear main line before _____ hours
12. ☐ Other instructions _____

Train Controller _____

Repeat correct at _____ hours

Locomotive Engineer use only	☐ DAS Target Location set to ☐ DAS Not in Use

RPO use only	**All locked off in Safe Place and Work Site clear at**	**hrs**

Limits reported clear by
Driver / Locomotive Engineer / Operator / Rail Protection Officer * at _____ hours

(Mark "X" in box for each item instructed) (* Delete words not required) July 2023

Example of Mis.88 Form

RP13 Identification and Verification of Location

1. Rail Infrastructure Features

Rail infrastructure features include:

- full kilometre pegs
- tunnel portals
- signals, boards, points or points indicators
- bridge meterage
- main line points
- level crossing meterage
- traction pole meterage
- station platform

NOTE
Traction poles in the Auckland Electrified Area do not display meterages and cannot be relied upon to positively identify the location.

Rail Personnel

1. Use established rail infrastructure features and S&I diagrams to positively identify the location when communicating with the Train Controller, Emergency Services, or other Rail Personnel.

NOTE
Some rail infrastructure features will display the line on which they are installed, while others will display the meterage only.

2. Application

Rail Personnel

1. Locate the nearest rail infrastructure feature to identify the meterage for the line you intend to occupy.
2. Use an S&I diagram to cross-check:
   a. the station names on either side of your location when not within station limits, or
   b. the signal names or points numbers on either side of your location when within station limits, and
   c. which main line do you intend to occupy, if in multi-line areas.
3. When prompted, state that you are:
   a. At the [xxkm] between [station name] and [station name], or
   b. At the [xxkm] between [signal name] and [signal name] signals at [station name], or

c. At the [xxkm] on the up main between [station name] and [station name], or
d. At the [xxkm] between [points number] [station name] and [station name]

NOTE
Examples of identification locations are:

- I am at the 470 km between Te Kuiti and Puketutu.
- I am at the 76.32 km between 4R and 4LA signals at Chertsey.
- I am at the 613.12 km on the up main between Mercer and Pukekohe.
- I am at the 35 km between 9 points Ikamatua and Grey Valley Siding.

RP14 Operating Switch Lock Sidings

1. Opening the Switch Lock

Operator

1. Stop the rail vehicle(s) on the track circuit extending from a white marker post to the switch-locked points.
2. If not obtained before entering the main line/loop, obtain authority from the Train Controller to open the switch lock.
3. To avoid the signal protecting the switch lock reverting to stop for an approaching rail vehicle(s) when switch locked points crossover multiple main lines:
   a. stop the rail vehicle(s) at the siding
   b. obtain authority from the Train Controller
   c. open the switch lock door.

Train Controller

4. Confirm the location of other rail vehicles approaching the siding before giving authority to the Operator.

Operator

5. Open the switch lock door and release the switch lock (in accordance with local instructions), allowing the points to be operated to reverse and normal as needed.

2. Shunting Sidings

2.1 Not Required to Completely Enter Siding

When rail vehicles are not required to completely enter a siding before continuing:

Operator

1. Leave the switch lock in the release position until shunting is completed and the rail vehicle(s) has returned to the main line.
2. Set the points to the normal setting for the main line, restore the switch lock to locked, and close and padlock the door.

2.2 Completely Enter Siding

When the rail vehicle(s) are required to completely enter the siding before continuing:

Train Controller

1. Tell the Operator to berth in a siding when:
   a. required to clear the main line for other movements, and
   b. the rail vehicle(s) is to return to the originating station at the entrance to a main line / loop section.

Operator

2. Berth the rail vehicle(s) clear of the siding trap or safety points.
3. Close the points, restore the switch lock to locked, and then close and padlock the door.

4. Tell the Train Controller when the actions are completed.
5. Ensure all siding movements do not encroach beyond the siding trap or safety points.
6. Obtain permission from the Train Controller to open the switch lock when the rail vehicle(s) is ready to re-enter the main line/loop section.
7. After the Train Controller has confirmed no conflicting rail vehicle movements and has given authority, release the switch lock and move the rail vehicle(s) onto the main line.
8. Set the points to the normal setting for the main line to ensure siding protection, restore the switch lock to locked, and close and padlock the door.

2.3 Shunting a Siding when Travelling on a SWA-01

Train Controller

When you require an Operator travelling on a SWA-01 to lock inside the switch lock siding for subsequent main line rail vehicle movements, you must tell the Operator to:

1. restore the main line points to normal,
2. return the switch lock back to your control,
3. cancel the SWA-01 clear of the block section, and
4. advise the Operator not to operate the switch lock again until instructed.

IMPORTANT
When you issue a subsequent SWA-01 authority to another Operator to travel through the block section, you must use clause 8 of the SWA-01 to advise of the train locked away in the siding.

Operator

When you enter a block section on a SWA-01 and are required to shunt a switch lock siding, you must leave the switch lock in the release position until your train has returned to the main line.

2.1 Not Required to Completely Enter Siding

When rail vehicles are not required to completely enter a siding before continuing:

Operator

1. Leave the switch lock in the release position until shunting is completed and the rail vehicle(s) has returned to the main line.
2. Set the points to the normal setting for the main line, restore the switch lock to locked, and close and padlock the door.

2.2 Completely Enter Siding

When the rail vehicle(s) are required to completely enter the siding before continuing:

Train Controller

1. Tell the Operator to berth in a siding when:
   a. required to clear the main line for other movements, and
   b. the rail vehicle(s) is to return to the originating station at the entrance to a main line / loop section.

Operator

2. Berth the rail vehicle(s) clear of the siding trap or safety points.
3. Close the points, restore the switch lock to locked, and then close and padlock the door.
4. Tell the Train Controller when the actions are completed.
5. Ensure all siding movements do not encroach beyond the siding trap or safety points.
6. Obtain permission from the Train Controller to open the switch lock when the rail vehicle(s) is ready to re-enter the main line/loop section.
7. After the Train Controller has confirmed no conflicting rail vehicle movements and has given authority, release the switch lock and move the rail vehicle(s) onto the main line.
8. Set the points to the normal setting for the main line to ensure siding protection, restore the switch lock to locked, and close and padlock the door.

2.3 Shunting a Siding when Travelling on a SWA-01

Operator

When you enter a block section on a SWA-01 and are required to shunt a switch lock siding, you must leave the switch lock in the release position until your train has returned to the main line.

Train Controller

When you require an Operator travelling on a SWA-01 to lock inside the switch lock siding for subsequent main line rail vehicle movements, you must tell the Operator to:

1. restore the main line points to normal,
2. return the switch lock back to your control,
3. cancel the SWA-01 clear of the block section, and
4. advise the Operator not to operate the switch lock again until instructed.

IMPORTANT
When you issue a subsequent SWA-01 authority to another Operator to travel through the block section, you must use clause 8 of the SWA-01 to advise of the train locked away in the siding.

3. Switch Lock Unable to Release

Train Controller

1. Obtain confirmation from the Operator that the rail vehicle(s) is stopped at the points.
2. Verbally authorise the Signals Maintenance Representative to open the switch lock.
3. When shunting is complete, and the movement has returned to the main line, confirm that the Signals Maintenance Representative will restore the points to normal and lock the switch lock.

Signals Maintenance Representative

4. Verbally certify that the switch lock points have been secured for main line running to the Train Controller.

Train Controller

5. Endorse the certification received from the Signals Maintenance Representative on the train control diagram.

6. When rail vehicle(s) are locked in siding, and the switch lock needs to be released, confirm:
    a. that the section is clear, and
    b. signal blocking is applied (where available).
7. Verbally authorise the Signals Maintenance Representative to open the switch lock.

4. HRV or Similar Movements

When an HRV or similar movements are authorised following a shunt/train that will shunt at a switch lock siding:

Train Controller

1. Authorise a track occupancy only to:
    a. a non-conflict location, and
    b. short of the location of the switch lock siding.
2. Do not provide further authorisation until:
    a. confirmation has been received that the shunt/train has departed the switch lock siding, and
    b. signal blocking is applied to prevent the shunt/train from departing.

RP15 Implementing Temporary Speed Restrictions

1. General

For a description of the temporary speed restriction boards, refer to the **Network Signals, Indicators and Boards Manual**.

IMPORTANT
Boards must not be covered.

2. Planned Speed Restrictions

Track Maintenance Representative

1. Tell the Train Controller the following:
   a. that temporary speed boards have been erected
   b. meterages for the start and finish of the restriction
   c. the stations between which it is to be imposed
   d. whether it will affect the up, down, or all lines in multi-line areas
   e. the speed restriction required
   f. the date of commencement
   g. the hours applicable (full-time or during defined hours only)
   h. the probable duration of the restriction
   i. the reason for the restriction.
2. Keep the extent, speed reduction, and duration of the restriction to a minimum, consistent with safety.

IMPORTANT
The boards must be erected on the day and at the time nominated by the Access Provider's Speed Restriction System or bulletin. The reverse applies when a speed restriction is to end.

3. Unplanned Speed Restrictions

When it is necessary to temporarily reduce the speed of rail vehicles due to an unplanned event, the Train Controller may be required to apply a speed restriction immediately.

Track Maintenance Representative

1. Immediately upon arrival at the defective location, contact the Train Controller.
2. When the Train Controller cannot be contacted, arrange emergency protection for the defective area.
3. Once onsite, erect temporary speed restriction boards unless the defect can be immediately resolved.

Train Controller

4. Arrange for the Operators of all rail vehicles which will pass over the defective location to be advised until the restriction is notified in the Access Provider Speed Restriction System or by bulletin.
5. When the Track Maintenance Representative advises a delay in erecting boards, tell the Network Control Manager.

Network Control Manager

6. When advised by the Train Controller that there is a delay in erecting boards, arrange with Network Services Management for boards to be erected within a timeframe as reasonably practical.
7. Issue a bulletin advising Operators that boards have not been erected.

Train Controller

8. Tell the Network Control Manager when the boards are in place.

IMPORTANT
Temporary miniature outer and inner speed boards may be erected. However, full size boards must replace the temporary miniature boards within 72 hours of applying the restriction.

4. Protected Work Area Restrictions

When a Track Maintenance Representative is carrying out track repairs, and:

- is required to clear the track for a rail movement, and
- a temporary speed restriction is not in place, and
- it is necessary to temporarily reduce the speed of rail vehicles over part or all of the PWA,

the following procedures apply.

Rail Protection Officer

Before clearing the track for a rail movement:

1. confirm that the inner ‘C’ and inner ‘T’ boards are erected to identify the commencement and termination of each restriction, and
2. tell the Train Controller of temporary speed restriction(s).

IMPORTANT
When the speed restriction(s) is to continue beyond the work period, all outer and inner boards must be erected, and the speed restriction(s) advised.

Train Controller

3. Arrange for all Operators who will pass over the defective location to be advised of the restriction.

4.1 Using Compulsory Stop Protection

Rail Protection Officer

1. Tell Operators of all speed restrictions within their work area.
2. Place the ‘C’ and ‘T’ boards adjacent to the site limit boards for the worksite when the speed restriction specific to a worksite is within a major work area.

NOTE
When the speed restriction is to apply for the entire protected work area, you may use work area begins and work area ends boards in place of inner ‘C’ and ‘T’ boards if required.

4.1 Using Compulsory Stop Protection

Rail Protection Officer

1. Tell Operators of all speed restrictions within their work area.
2. Place the ‘C’ and ‘T’ boards adjacent to the site limit boards for the worksite when the speed restriction specific to a worksite is within a major work area.

NOTE
When the speed restriction is to apply for the entire protected work area, you may use work area begins and work area ends boards in place of inner ‘C’ and ‘T’ boards if required.

5. Erection of Speed Boards

5.1 Outer Speed Board

Track Maintenance Representative

1. Arrange for outer speed restriction boards to be placed and maintained until normal speeds may be resumed.
2. On a single line, place a board on the right-hand side of each defective location in the direction of travel.
3. On a multi-line, place a board on each side of the defective location, on the left side, in the normal direction from which rail vehicles will travel.
4. Place the board(s) 1500 metres from the inner speed board.
5. Confirm the board(s) are placed so that Operators of approaching rail vehicles can obtain a clear and distant view of the board(s).

5.2 Inner Speed Board - White C/T Board

Track Maintenance Representative

1. Arrange for inner speed restriction boards to be placed and maintained until normal speeds may be resumed.
2. On a single line, place a board 50 metres before the start on each right side of the defective location in the direction of travel.
3. On a multi-line, place a board 50 metres before the start on each side of the defective location, on the left side, in the normal direction from which rail vehicles will travel.
4. Place miniature inner speed boards in multi-line areas opposite the inner speed boards between the two lines on the right-hand side of the line in the direction of travel.

NOTE
Temporary inner speed boards and temporary miniature inner speed boards are used with all temporary outer speed boards.

NOTE
For defective warning devices at level crossings, normal speed may be resumed once the rail vehicle is on the crossing.

NOTE
Miniature inner speed boards will be used in multi-line areas opposite the inner speed boards and placed between the two lines on the right-hand side of the line in the direction of travel. They should not project more than 850 mm above the rail level.

IMPORTANT
Conventional boards will replace the temporary miniature boards within 72 hours of applying the restriction.

5.1 Outer Speed Board

Track Maintenance Representative

1. Arrange for outer speed restriction boards to be placed and maintained until normal speeds may be resumed.
2. On a single line, place a board on the right-hand side of each defective location in the direction of travel.
3. On a multi-line, place a board on each side of the defective location, on the left side, in the normal direction from which rail vehicles will travel.

4. Place the board(s) 1500 metres from the inner speed board.
5. Confirm the board(s) are placed so that Operators of approaching rail vehicles can obtain a clear and distant view of the board(s).

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Track Maintenance Representative

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NOTE
Miniature inner speed boards will be used in multi-line areas opposite the inner speed boards and placed between the two lines on the right-hand side of the line in the direction of travel. They should not project more than 850 mm above the rail level.

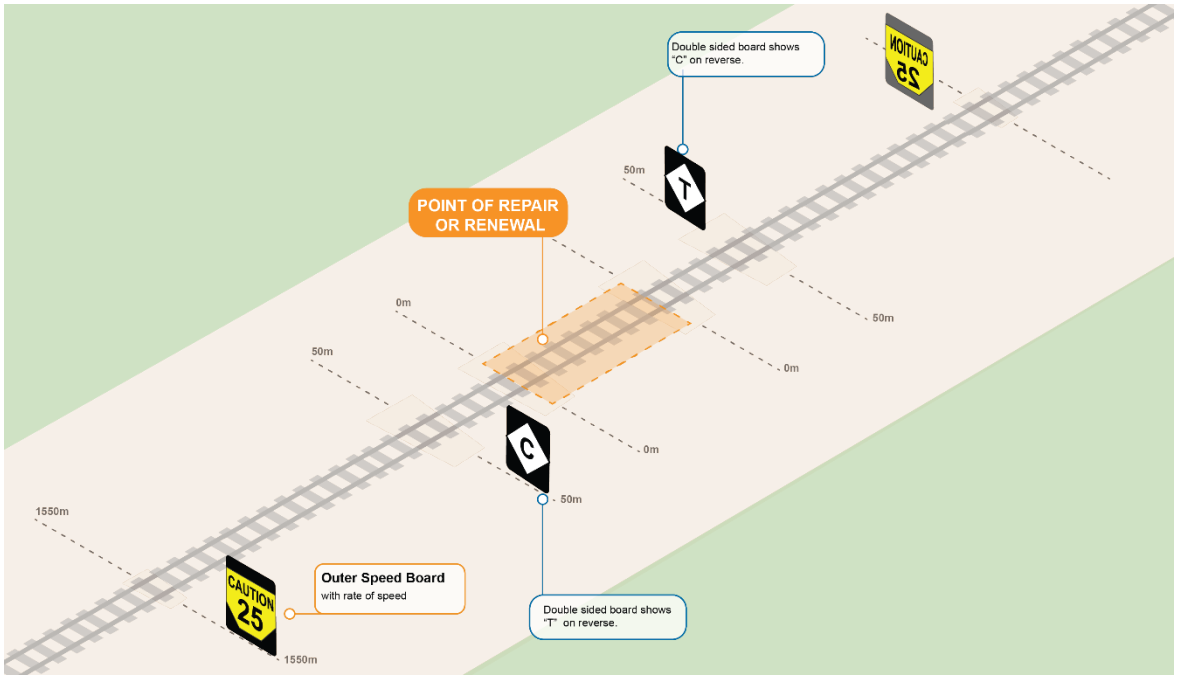
IMPORTANT
Conventional boards will replace the temporary miniature boards within 72 hours of applying the restriction.

6. Near Signals or Tunnels

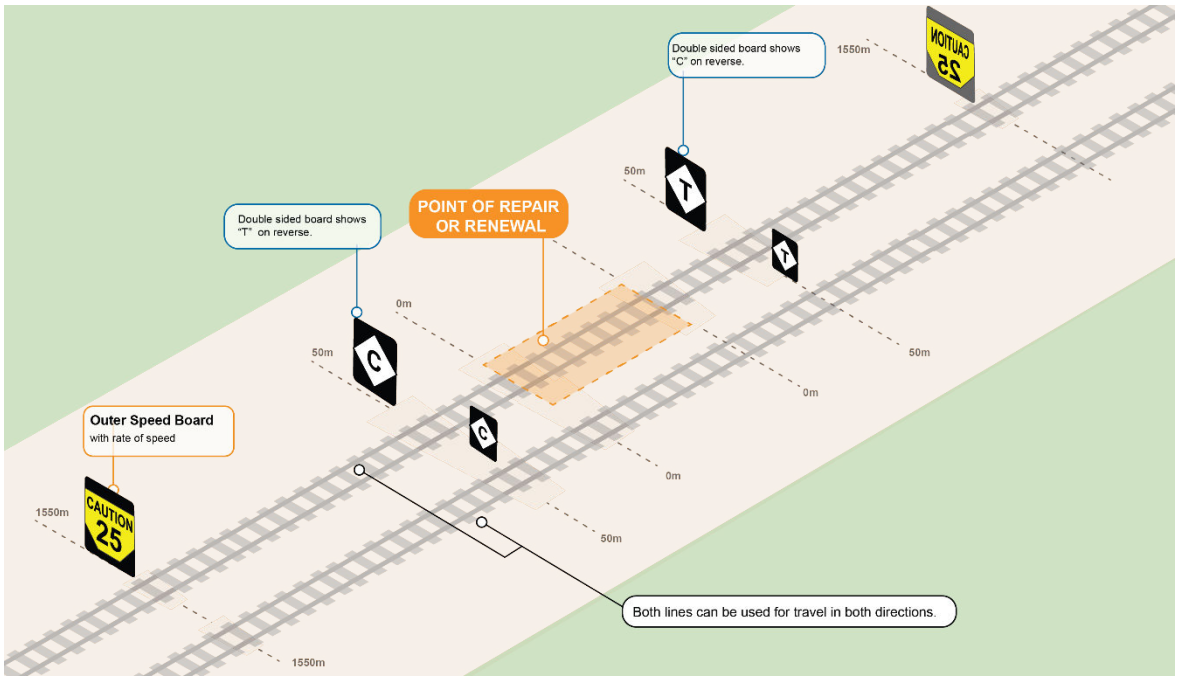
If the distance at which an outer speed board is to be placed should be near fixed signals controlling the entrance of rail vehicles into the affected section or in a tunnel:

Track Maintenance Representative

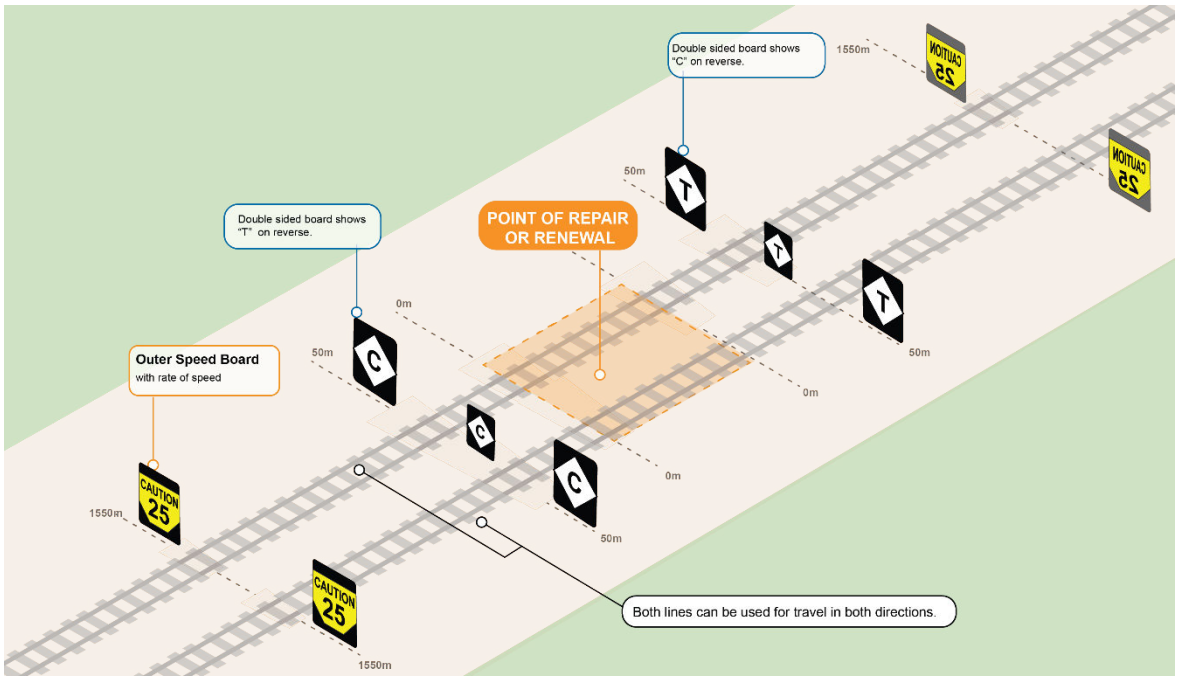
1. Place the board after the fixed signals or tunnel where the Operators of approaching rail vehicles can obtain a clear and distant view of the board.



Example of Speed Board Placement for a Single Line Speed Restriction in a Single Line Area



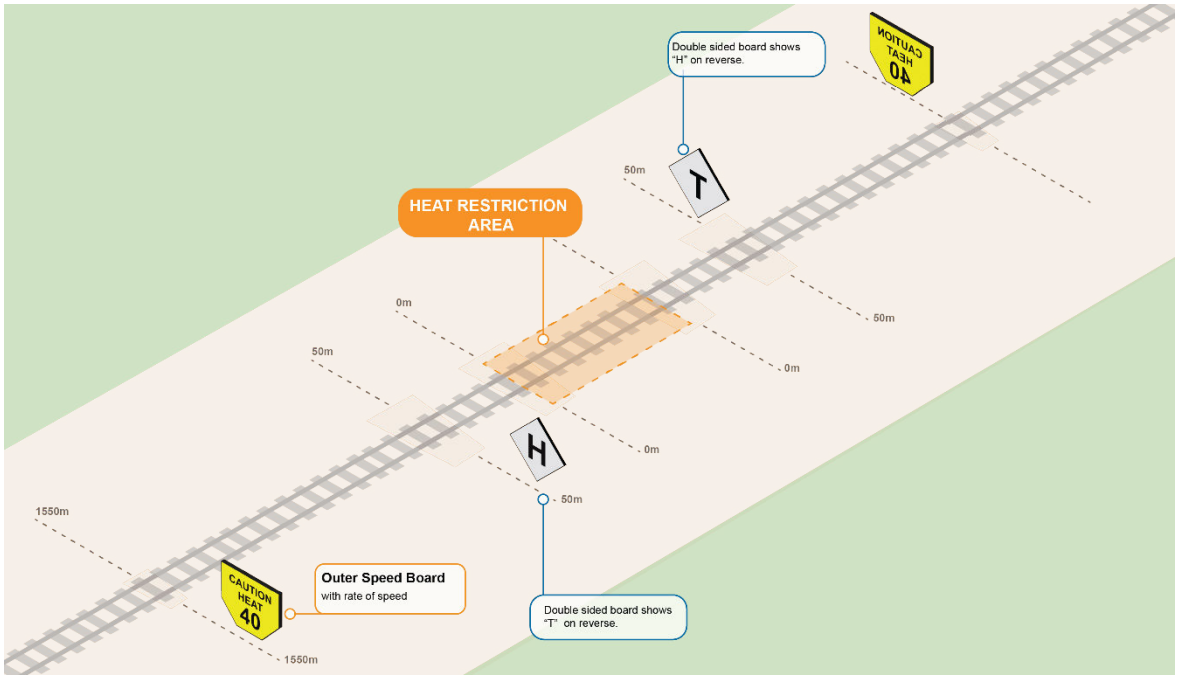
Example of Speed Board Placement for a Single Line Speed Restriction in a Multi-Line Area



Example of Speed Board Placement for a Multi-Line Speed Restriction in a Multi-Line Area

7. Temporary Heat Restrictions

7.1 Implementing Temporary Heat Restriction Boards



Example of Speed Board Placement for a Single Line Temporary Heat Restriction in a Single Line Area

Track Maintenance Representative

NOTE
Temporary Heat Restrictions must have special outer speed boards erected. These 40 km/h speed boards with their associated ‘H’ and ‘T’ boards will remain uncovered. ‘T’ boards are fitted with a miniature ‘H’ to note that the board is for a temporary heat restriction.

When ordinary speed boards need to be used, this must be notified by issue of a bulletin.

1. Tell the Train Controller the following:
   a. that temporary heat restriction boards have been erected
   b. meterages for the start and finish of the restriction
   c. the stations between which it is to be imposed
   d. whether it will affect the up, down, or all lines in multi-line areas
   e. the probable duration of the restriction
2. Keep the extent of the restriction to a minimum, consistent with safety.

7.2 Application of Heat Restrictions

Track Maintenance Representative

3. When there is a high rail temperature, you must tell the Train Controller to apply the procedures for an activated heat alarm area.

Train Controller

When a heat alarm area is activated or you are told by the Track Maintenance Representative:

4. endorse the activated heat alarm area on the Train Control diagram in accordance with the **Train Control and Signal Box Manual, 2. Train Control Diagram**,
5. endorse the daily heat sheet,
6. tell all affected Operators of the heat area that applies, and
7. tell the Operations Support Representative.

Operator

8. Endorse all activations of relevant heat alarms on the daily heat sheet and the train work order (temporary speed restrictions).
9. You must not exceed 40 km/h inside temporary heat restrictions when operating
   a. a freight train on all lines,
   b. an empty passenger train on all lines, or
   c. a passenger train on the following lines:
      i. Main North Line
      ii. Midland Line
      iii. Addington - Rolleston
      iv. Oamaru - Wingatui (including Wingatui station limits)
      v. Port Chalmers Branch
      vi. Wellington Metro - all lines between Wellington, Johnsonville, Waikanae, Melling and Masterton

vii. Auckland Metro - all lines between Swanson and Pukekohe (excluding the Mission Bush Branch)
viii. Waikanae - Pukekohe.

10. You must travel at Restricted Speed over the whole heat alarm area when operating a passenger train on the following lines:
    a. Main South Line (Lyttleton to Addington and Rolleston to Oamaru and Wingatui to Invercargill
    b. Napier Freight Branch
    c. East Coast Main Trunk
    d. Kinleith Branch
    e. Mission Bush Branch
    f. Mt Maunganui Branch
    g. PNGL Palmerston North to Napier
    h. Marton - New Plymouth Line.

Track Maintenance Representative

11. Inspect the heat alarm area.
12. If extreme hot temperature exceeds 55°C, tell the Train Controller to apply Adverse Weather Restrictions, as detailed in **GR06 Conditions Affecting the Network, 10. Weather Conditions.**
13. For passenger trains which are subject to Restricted Speed over the whole heat alarm area (as listed above), you must tell the Train Controller that the passenger trains are safe to continue. You must continue to monitor track conditions.

Train Controller

14. You must tell Operators of passenger trains which are subject to Restricted Speed over the whole heat alarm area (as listed above) that clearance to continue has been given from the Track Maintenance Representative and endorse this on the daily heat sheet.

Operator

15. When you are the Operator of a passenger train which is required to travel at Restricted Speed over the whole heat alarm area (as listed above), you must endorse the clearance to continue from the Train Controller on the daily heat sheet.

Track Maintenance Representative

16. Tell the Train Controller the restriction arrangements for an activated heat alarm area for the remainder of the day.

Train Controller

17. When the restriction arrangements have been completed, you must lift the heat alarm areas by:
    a. endorsing the daily heat sheet,
    b. endorsing the Train Control diagram in accordance with the **Train Control and Signal Box Manual, 2. Train Control Diagram**, and
    c. telling the Operator of affected trains that they may run at normal speed.

7.1 Implementing Temporary Heat Restriction Boards

Track Maintenance Representative

1. Tell the Train Controller the following:
    a. that temporary heat restriction boards have been erected
    b. meterages for the start and finish of the restriction

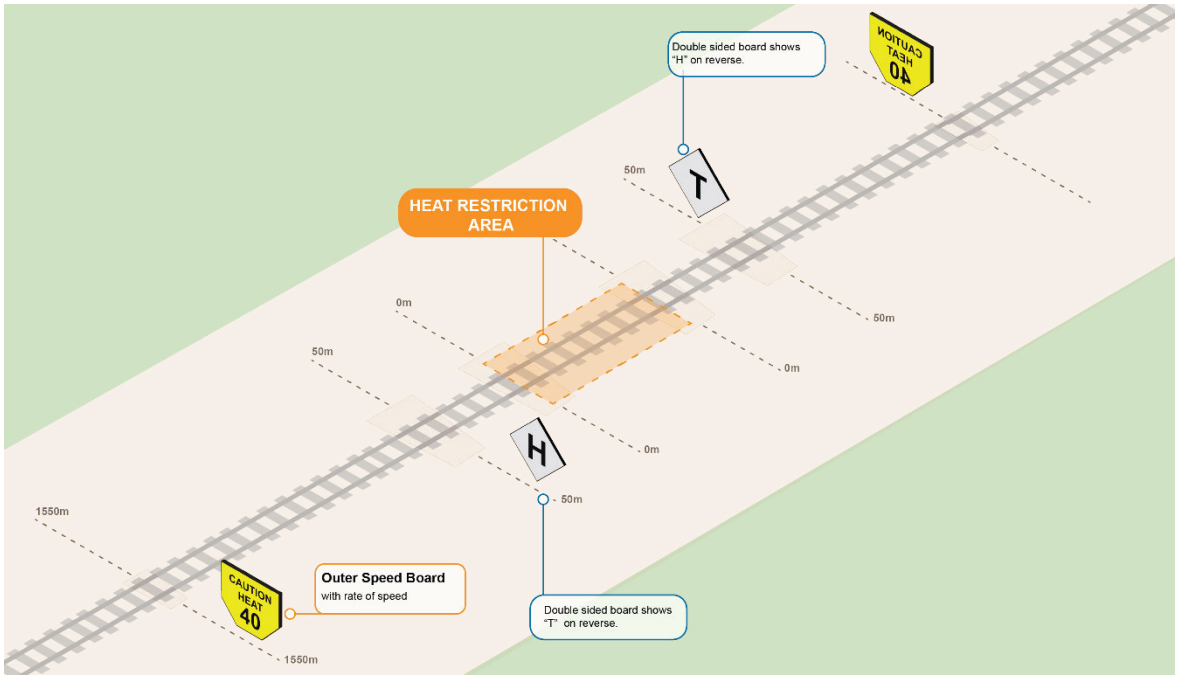
c. the stations between which it is to be imposed
d. whether it will affect the up, down, or all lines in multi-line areas
e. the probable duration of the restriction

2. Keep the extent of the restriction to a minimum, consistent with safety.

NOTE

Temporary Heat Restrictions must have special outer speed boards erected. These 40 km/h speed boards with their associated ‘H’ and ‘T’ boards will remain uncovered. ‘T’ boards are fitted with a miniature ‘H’ to note that the board is for a temporary heat restriction.

When ordinary speed boards need to be used, this must be notified by issue of a bulletin.



Example of Speed Board Placement for a Single Line Temporary Heat Restriction in a Single Line Area

7.2 Application of Heat Restrictions

Track Maintenance Representative

1. When there is a high rail temperature, you must tell the Train Controller to apply the procedures for an activated heat alarm area.

Train Controller

When a heat alarm area is activated or you are told by the Track Maintenance Representative:

2. endorse the activated heat alarm area on the Train Control diagram in accordance with the **Train Control and Signal Box Manual, 2. Train Control Diagram**,
3. endorse the daily heat sheet,

4. tell all affected Operators of the heat area that applies, and
5. tell the Operations Support Representative.

Operator

6. Endorse all activations of relevant heat alarms on the daily heat sheet and the train work order (temporary speed restrictions).
7. You must not exceed 40 km/h inside temporary heat restrictions when operating
   a. a freight train on all lines,
   b. an empty passenger train on all lines, or
   c. a passenger train on the following lines:
      i. Main North Line
      ii. Midland Line
      iii. Addington - Rolleston
      iv. Oamaru - Wingatui (including Wingatui station limits)
      v. Port Chalmers Branch
      vi. Wellington Metro - all lines between Wellington, Johnsonville, Waikanae, Melling and Masterton
      vii. Auckland Metro - all lines between Swanson and Pukekohe (excluding the Mission Bush Branch)
      viii. Waikanae - Pukekohe.
8. You must travel at Restricted Speed over the whole heat alarm area when operating a passenger train on the following lines:
   a. Main South Line (Lyttleton to Addington and Rolleston to Oamaru and Wingatui to Invercargill
   b. Napier Freight Branch
   c. East Coast Main Trunk
   d. Kinleith Branch
   e. Mission Bush Branch
   f. Mt Maunganui Branch
   g. PNGL Palmerston North to Napier
   h. Marton - New Plymouth Line.

Track Maintenance Representative

9. Inspect the heat alarm area.
10. If extreme hot temperature exceeds 55°C, tell the Train Controller to apply Adverse Weather Restrictions, as detailed in **GR06 Conditions Affecting the Network, 10. Weather Conditions.**
11. For passenger trains which are subject to Restricted Speed over the whole heat alarm area (as listed above), you must tell the Train Controller that the passenger trains are safe to continue. You must continue to monitor track conditions.

Train Controller

12. You must tell Operators of passenger trains which are subject to Restricted Speed over the whole heat alarm area (as listed above) that clearance to continue has been given from the Track Maintenance Representative and endorse this on the daily heat sheet.

Operator

13. When you are the Operator of a passenger train which is required to travel at Restricted Speed over the whole heat alarm area (as listed above), you must endorse the clearance to continue from the Train Controller on the daily heat sheet.

Track Maintenance Representative

14. Tell the Train Controller the restriction arrangements for an activated heat alarm area for the remainder of the day.

Train Controller

15. When the restriction arrangements have been completed, you must lift the heat alarm areas by:
    a. endorsing the daily heat sheet,
    b. endorsing the Train Control diagram in accordance with the **Train Control and Signal Box Manual, 2. Train Control Diagram**, and
    c. telling the Operator of affected trains that they may run at normal speed.

8. Restricting Speed in One Direction Only

In some circumstances, it is required to restrict the speed of rail vehicles in one direction only.

NOTE

Example: Where the view is good for an up-direction rail vehicle approaching a passively controlled level crossing; however, the down-direction rail vehicle has a poor / restricted view of the same level crossing, the restriction could only be imposed for down-direction rail vehicles.

The correct outer speed boards must be used, and appropriate references must be made in the Access Provider’s Speed Restriction System or bulletin.

RP16 Disabled Train Recovery

1. Introduction

1.1 Recovery Methods for Disabled Trains

The following recovery methods must only be applied in accordance with **TO05 Damaged and Disabled Rail Vehicles**:

- double bank the train by taking the train in portions to a station in advance
- detach a motive power unit from the train, proceed to the next station to attach a relief motive power unit, and return to assist the train from the section
- send a relief motive power unit or train into the section to assist.

1.1 Recovery Methods for Disabled Trains

The following recovery methods must only be applied in accordance with **TO05 Damaged and Disabled Rail Vehicles**:

- double bank the train by taking the train in portions to a station in advance
- detach a motive power unit from the train, proceed to the next station to attach a relief motive power unit, and return to assist the train from the section
- send a relief motive power unit or train into the section to assist.

2. Securing and Protecting

When double banking or attaching a relief motive power unit or train at the next station:

Operator

When you are the Operator of a disabled train, you must apply the following:

1. Tell the Train Controller of the failure and agree on the method to clear the section.
2. Confirm that the portion of the train to be left in the section has been secured to prevent a runaway.
3. Once confirmed:
   a. uncouple the portion to be taken forward and record the class and number of the rear vehicle
   b. move this portion forward approximately 200 metres
4. Place three detonators 10 metres apart on each rail to warn the Operator when returning towards the rear portion.

Train Controller

5. Confirm with the Operator Disabled Train the method to clear the section.

When a relief motive power unit or train is to be sent into the section:

Operator

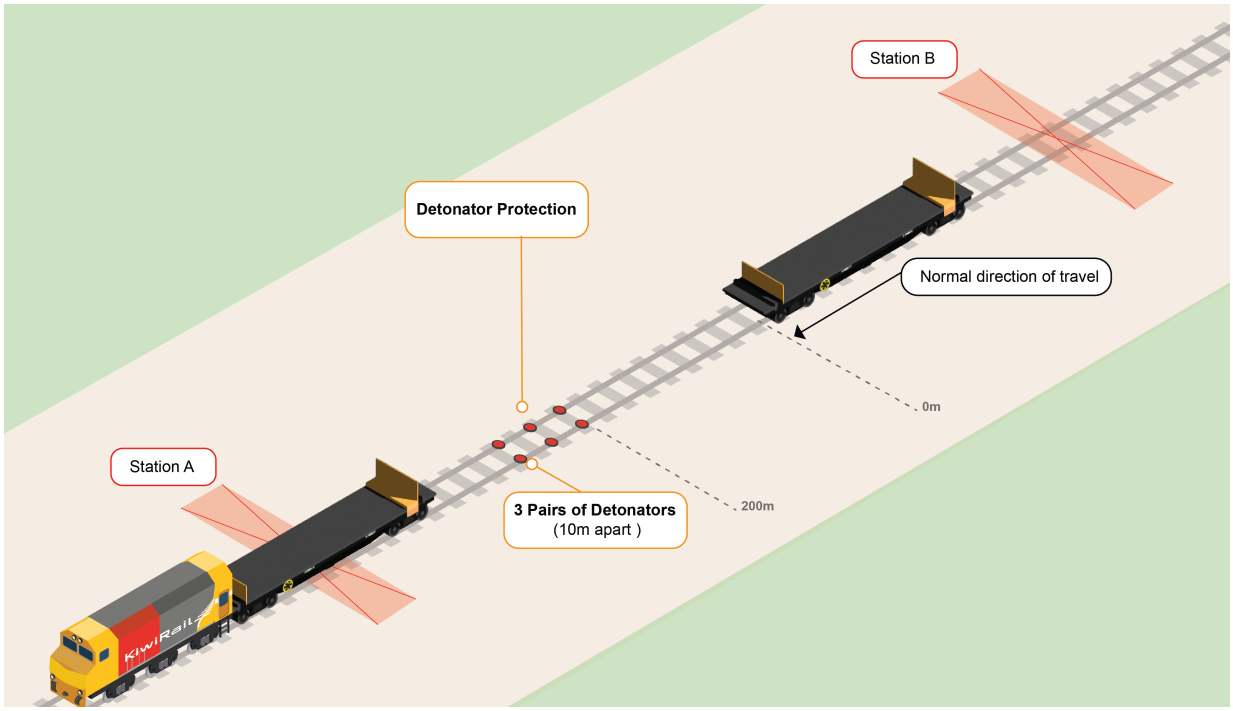
6. Tell the Train Controller of the failure and agree on the direction relief will arrive from

Train Controller

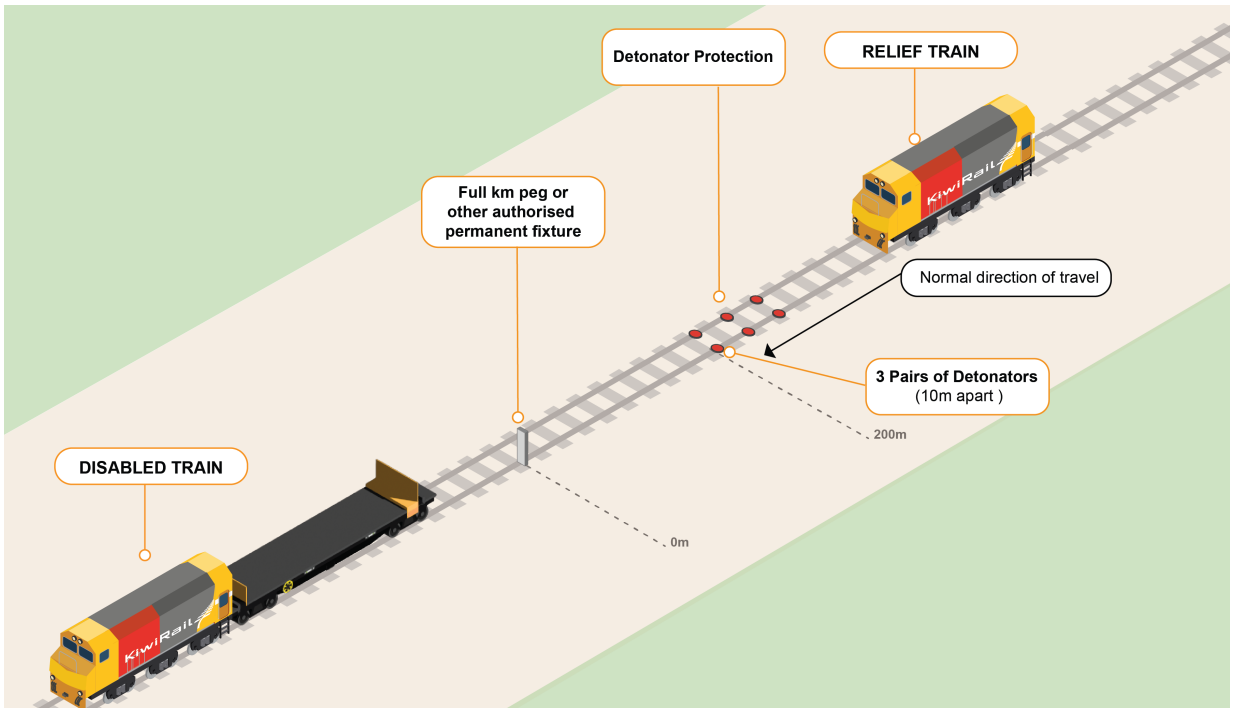
7. Agree with the Operator of the disabled train on the direction relief will arrive from

Operator

8. Proceed on foot in the direction from which relief will arrive and locate the first rail infrastructure feature beyond the train in accordance with **RP13 Identification and Verification of Location**.
9. Continue 200 metres beyond this location and place three detonators 10 metres apart on each rail.
10. Tell the Train Controller the train location details and confirm that detonator protection has been established.
11. If an obstruction, such as a bridge with no walkways, has prevented the placement of detonators, tell the Train Controller.
12. Maintain a safe distance of at least 50 metres from the detonator protection until the relief motive power unit arrives and pilot the relief motive power unit or train to the disabled train.



Establishing Protection for Obstruction



Establishing Protection for Relief MPU Entering the Section

RP17 Setting Back and Propelling Movements

1. Setting Back of Rail Vehicles on the Main Line

1.1 Planning

When approved riding positions are unavailable and/or access to the rear of the train is deemed impracticable, the Pilot must walk or travel by road.

Train Controller

1. Before authorising the setting back movement:
   a. locate level and pedestrian crossings, including access routes, and
   b. identify platforms, signals, sidings, turnouts and tunnels.
2. Confirm the above locations by checking the relevant S&I diagram.
3. Determine if the hazard at these features requires a Pilot.

NOTE

Signals, sidings, turnouts and tunnels do not need a Pilot if the Train Controller can confirm the line is clear by:

- setting signals/points and/or seeing their status, and/or
- issuing a safe working authority, work between track warrant or bulletin for the movement that encompasses intermediate signals.

4. Confirm the access route to the feature that requires protection with the Pilot.
5. Establish contact with the Operator and Pilot, and
   a. confirm that the train is stationary
   b. agree on the procedure to be applied
   c. agree on the feature/location where the movement will be set back (leading rail vehicle must stop short of the agreed feature).
6. Tell the Operator the estimated setting back distance to the agreed feature/location.
7. Prepare the safe working authority, work between track warrant or bulletin for the train to set back.

1.1 Planning

When approved riding positions are unavailable and/or access to the rear of the train is deemed impracticable, the Pilot must walk or travel by road.

Train Controller

1. Before authorising the setting back movement:
   a. locate level and pedestrian crossings, including access routes, and
   b. identify platforms, signals, sidings, turnouts and tunnels.
2. Confirm the above locations by checking the relevant S&I diagram.
3. Determine if the hazard at these features requires a Pilot.

NOTE
Signals, sidings, turnouts and tunnels do not need a Pilot if the Train Controller can confirm the line is clear by:

- setting signals/points and/or seeing their status, and/or
- issuing a safe working authority, work between track warrant or bulletin for the movement that encompasses intermediate signals.

4. Confirm the access route to the feature that requires protection with the Pilot.
5. Establish contact with the Operator and Pilot, and
   a. confirm that the train is stationary
   b. agree on the procedure to be applied
   c. agree on the feature/location where the movement will be set back (leading rail vehicle must stop short of the agreed feature).
6. Tell the Operator the estimated setting back distance to the agreed feature/location.
7. Prepare the safe working authority, work between track warrant or bulletin for the train to set back.

2. Setting Back Movement

Operator

1. Gain authority to set back from the Train Controller.
2. Confirm the Pilot is in position to protect the setting back movement.
3. Confirm the estimated distance to the feature/location with the Train Controller.
4. Where fitted, set the head-end counter for the distance to the following agreed feature/location (less the train length).
5. Maintain vigilance to stop the train if the Pilot or the Train Controller instructs.
6. Maintain the agreed frequency of radio calling with the Pilot advising distance travelled.
7. Stop the train before the agreed feature/location as directed by the Pilot.
8. If communication with the Pilot is lost:
   a. stop the train
   b. tell the Train Controller
   c. wait for the Train Controller to provide instructions before moving.

3. Piloting the Movement

Pilot

1. Complete a radio check with the Operator and confirm the train is stationary.
2. Check that all points are correctly set between the train and the agreed feature/location.
3. Proceed to the agreed feature/location.
4. Tell the Operator when in position at the agreed feature/location.
5. Agree on the frequency of radio calling with the Operator.
6. After the Operator confirms the Train Controller has provided authority to set back, commence and maintain radio communications with the Operator.
7. Tell the Operator to stop the train in time to ensure it does not pass the agreed feature/location.
8. Reposition to the following agreed feature/location.
9. Repeat steps 4 to 7 above.
10. When a signal displays a stop aspect, tell the Operator to stop the train in time and not pass the signal and wait for instructions from the Operator.

11. Where a signal is displaying a proceed aspect, or when authorised to pass a signal displaying a stop aspect:
    a. stop the train once the signal has been passed
    b. reposition to the following agreed feature/location
    c. repeat steps 4 to 7 above.

RP18 Using Points

1. Introduction

NOTE
For the operation of points systems, refer to the **Points System Manual** to support the operation of specific types of points.

NOTE
Refer to instructions for securing / isolating Type M5, TD 84M and M23A MKII, which are all dual control non-winding types.

2. Manual Operation of Points

2.1 Securing/Isolating of Motor Points

The following steps must be taken to correctly secure and isolate motor points due to a signal, points indicator or points failure before a rail movement is authorised to proceed.

Rail Personnel

1. When permission has been obtained from the Signaller, withdraw the crank handle from the detection holder in the crank handle box. Crank handle boxes are shown on the S&I diagram for that location.
2. When a motor points failure affects one or both motors of a crossover, isolate and hand-operate both ends of the motors. Both motors must remain isolated until the movement is completed.
3. If one of the motors for that set of points in the route is part of a crossover, isolation of it may affect the parallel route. Before securing these points, you must check with the Signaller to ensure that this action will not interfere with any movements on this route.

2.2 Motor Points Distant from a Signal

Signaller, Train Controller

1. When motor points to be secured are a distance beyond the signal/points indicator at which the movement is stopped, you may authorise the movement to proceed cautiously forward after ensuring the line is clear.
2. Tell the Operator to stop short of the motor points to be secured before authorising.

2.3 Hand Operation of Motor Points

Rail Personnel

1. Tell the Operator to stop short of the motor points to be secured before authorising.

2. Isolate the motor points described in the instructions for the specific type of motor points.
3. Insert the crank handle into the points motor and rotate the handle to move the points to the required setting. Rotation of the handle must continue until the internal locking mechanism prevents further movement.
4. Confirm with the Signaller that the above steps have been taken, and the setting of each set of hand-operated motor points .

IMPORTANT
When the motor points have failed and are lying in the correct setting for the intended movement, they must first be hand-operated to the opposite setting and then back again to ensure that the internal locking mechanism has been engaged.

CAUTION
Hand-operated motor points must remain isolated until the authorised movement is completely clear.

2.1 Securing/Isolating of Motor Points

The following steps must be taken to correctly secure and isolate motor points due to a signal, points indicator or points failure before a rail movement is authorised to proceed.

Rail Personnel

1. When permission has been obtained from the Signaller, withdraw the crank handle from the detection holder in the crank handle box. Crank handle boxes are shown on the S&I diagram for that location.
2. When a motor points failure affects one or both motors of a crossover, isolate and hand-operate both ends of the motors. Both motors must remain isolated until the movement is completed.
3. If one of the motors for that set of points in the route is part of a crossover, isolation of it may affect the parallel route. Before securing these points, you must check with the Signaller to ensure that this action will not interfere with any movements on this route.

2.2 Motor Points Distant from a Signal

Signaller, Train Controller

1. When motor points to be secured are a distance beyond the signal/points indicator at which the movement is stopped, you may authorise the movement to proceed cautiously forward after ensuring the line is clear.
2. Tell the Operator to stop short of the motor points to be secured before authorising.

2.3 Hand Operation of Motor Points

Rail Personnel

1. Tell the Operator to stop short of the motor points to be secured before authorising.
2. Isolate the motor points described in the instructions for the specific type of motor points.

3. Insert the crank handle into the points motor and rotate the handle to move the points to the required setting. Rotation of the handle must continue until the internal locking mechanism prevents further movement.
4. Confirm with the Signaller that the above steps have been taken, and the setting of each set of hand-operated motor points .

IMPORTANT
When the motor points have failed and are lying in the correct setting for the intended movement, they must first be hand-operated to the opposite setting and then back again to ensure that the internal locking mechanism has been engaged.

CAUTION
Hand-operated motor points must remain isolated until the authorised movement is completely clear.

3. Points in the Secured Setting

In some cases, it may be necessary for the motor points to be left in a secured setting.

Signaller

1. Set the points to the isolated setting in which they are to be isolated to prevent an unintended movement if an unauthorised restoration occurs.

Rail Personnel

2. When instructed by the Signaller, remove the crank handle from the motor points and close and lock the weatherproof cap.
3. Leave the isolating rings in the hand operating setting. Replace the crank handle into the bottom of the location box but not into the detection holder.
4. Lock the location box and tell the Signaller.

NOTE
The motor points need not be certified secure for further movements for the route set.

Signaller

1. Where the motor points controls in the Signal Box allow, the control lever must be placed to reflect the setting of the hand-operated motor points before authorising a movement. When not required, the lever must be placed in the setting it occupied before the failure occurred.

NOTE
When it is impossible to close and lock the weatherproof cap, the procedure outlined above must be applied for all subsequent movements while the motor points are in defective condition.

4. Location of Crank Handles

Crank handles are held in a detection holder, fitted in a specially built box at the signals location building, usually near the main line points. Crank handle boxes are shown on the S&I Diagram for that location.

NOTE
CTS2 crank handles are part of the points machines.

Crank Handle in the Location Box

5. Restoration to Normal Power Operation

Rail Personnel

1. Only restore power to the motor points once instructed by the Signaller.
2. Remove the crank handle from the motor points, ensure the isolator is set for power operations, and replace and lock the weatherproof cap.

3. Return to the crank handle box, replace the crank handle into the detection holder and rotate to the detect position.
4. Lock the crank handle box and tell the Signaller, who will confirm power operation by testing the motor points to the normal and reverse settings.

DANGER

Stand clear of motor points when restoring them to power operation, as the points blades may move when the power is reconnected.

RP19 Reporting Faulty Signals

1. Introduction

The Train Controller and Signals Maintenance Representative must be advised immediately if any signal failure or irregularity occurs.

2. Reporting Faulty Signals

Rail Personnel

1. Immediately report any signal faults to the Train Controller.

NOTE

Locomotive Engineers must record any other non-urgent faults and maintenance issues on the Mis.346 and fax or email to the KiwiRail Operations Support Desk number shown at the bottom of the Mis.346.

Train Controller

2. Immediately report signal faults advised by the Operator to the KiwiRail Operations Support Desk.
3. Categorise each reported signal fault as either P1, P2 or P3.

Operations Support Representative

4. Tell the Signals Maintenance Representative of any signal fault reported by the Train Controller that requires attention.
5. Retain a record of when the Train Controller reports each signal fault.

Signals Maintenance Representative

6. Should a signal fault not be repaired immediately (i.e., spare part or extra equipment unavailable), tell the Train Controller or Network Control Manager of the situation.

Network Control Manager

7. If the signal fault is not repaired immediately, take the appropriate action to ensure those affected are advised.

NOTE

The Mis.346 is provided in a photocopied format. Managers must make them available to Locomotive Engineers.

NOTE
To facilitate repairs, Operators may stop between stations to pick up or set down Signals or Track Maintenance Representatives in cases of emergency.

KiwiRail

Infrastructure Maintenance Notification Mis 346

(To be used by Locomotive Engineers for non-urgent faults and maintenance issues)

Date _____ **Time** _____ **Name** _____

Depot _____ **Train No** _____ **Loco/Class** _____

Line _____

Location between _____ and _____

(Use Kilometre Pegs, Signals or Stations)

Section 1 Track Maintenance

Fault Found on a:

☐ Curve ☐ Straight ☐ Level Crossing ☐ Turnout ☐ Tunnel ☐ Bridge ☐ Siding ☐ Yard

Type of Fault:

☐ Kick in Track ☐ Soft Spot ☐ Clearance/Growth ☐ Slip/Subsidence ☐ Twist/Cant

☐ Signage ☐ Grease on rail ☐ Other _____

Comments _____

_____

_____

_____

Section 2 Signals, Radio And Electrical

☐ Signal view line obstructed. Signal number _____

☐ Signal dim. Signal number ___ _____

☐ Radio reception

☐ Unit/Loco fixed* or portable radios*. Unit/Loco number (*Delete one not applicable)

☐ Yard radio

☐ Platform/Yard lighting

☐ Other

Comments _____

_____

_____

This advice must be sent to KiwiRail Network Operation Support

0800 288 000 fax 04 498 3026 or ext 43026 internal ext 155

Notes:

1) All urgent faults (including the loco radio) are to be reported to Train Control.
Train Control will arrange an KiwRail Network response via the KiwRail Network Operation Support Desk.
2) Unit/Loco radio faults to be logged with KiwRail Network Operation Support Desk as well as recorded on the Loco54D form
All particulars on this form must be legible for the particulars to be recorded correctly.

Senders Fax # GWI No. #

Hand completed copy of form to your Manager

Mis346 Issue 4 08/10

Mis.346

RP20 Managing Authorities Exceeded

1. Limit of Authority Exceeded

Operator or Driver

If you exceed a Limit of Authority, you must immediately:

1. come to a complete stop, and
2. advise the Train Controller, and Signaller where applicable.

You must not move your rail vehicle until you are provided a movement authority from the Train Controller or Signaller.

2. Movement Authority

2.1 Starting Signals (Absolute)

Signaller

1. When a starting signal is passed at stop and after completing the prescribed checks, either:
   a. verbally authorise the movement to continue, or
   b. arrange for the movement to set back within the signal to enable the movement to depart on a proceed signal.

2.2 Departure Signal

When a departure signal is passed at stop:

Train Controller

1. Issue a SWA-01 for the movement to continue, or
2. Arrange for the movement to set back within the signal to enable the movement to depart on a proceed signal.

2.3 Intermediate Signals

When an intermediate signal is passed at stop:

Train Controller

1. Complete the prescribed checks.
2. Apply the requirements for authorising movements past the specific intermediate signal at stop.
3. Verbally authorise the movement to continue.

2.4 Interlocked Stations (Absolute)

When a signal or station entry board is passed at stop:

Signaller

1. Verbally authorise the movement to either:
   a. continue, or
   b. set back within the signal to enable the movement to proceed on a proceed signal.

IMPORTANT
If setting back into / within a block section is necessary, a SWA-01 from the Train Controller is required.

2.1 Starting Signals (Absolute)

Signaller

1. When a starting signal is passed at stop and after completing the prescribed checks, either:
   a. verbally authorise the movement to continue, or
   b. arrange for the movement to set back within the signal to enable the movement to depart on a proceed signal.

2.2 Departure Signal

When a departure signal is passed at stop:

Train Controller

1. Issue a SWA-01 for the movement to continue, or
2. Arrange for the movement to set back within the signal to enable the movement to depart on a proceed signal.

2.3 Intermediate Signals

When an intermediate signal is passed at stop:

Train Controller

1. Complete the prescribed checks.
2. Apply the requirements for authorising movements past the specific intermediate signal at stop.
3. Verbally authorise the movement to continue.

2.4 Interlocked Stations (Absolute)

When a signal or station entry board is passed at stop:

Signaller

1. Verbally authorise the movement to either:
   a. continue, or
   b. set back within the signal to enable the movement to proceed on a proceed signal.

IMPORTANT
If setting back into / within a block section is necessary, a SWA-01 from the Train Controller is required.

3. Block Entry Board (Absolute)

Train Controller

1. When a block entry board is overrun, issue a SWA-01 for the movement to continue.

KiwiRail **Safe Working Authority** **SWA-01**

1 ☐ **Authority Number** 1XXX _____ day ____/____/____ date

2 ☐ **Operator** of _____ at _____

between* _____ and* _____ _____ is authorised to:
Line

Single Line Areas

3 ☐ **Pass No.** _____ Signal* / Board* at Stop
- and proceed in accordance with fixed signals*
- for shunting purposes*

Multi Line Areas

4 ☐ **Pass No.** _____ Signal* / Board* at Stop
- and proceed on the _____ main in accordance with fixed signals / Station Entry Board*
- for shunting purposes*

5 ☐ **Set back** from _____

between* _____ and* _____ _____
Line

to _____ in accordance with fixed signals / Station Entry Board

6 ☐ **Points Nos.** ____/____/____ at _____ are secured for the movement

7 ☐ **Call clear and complete of** Intermediate Signal No.* _____ / Block Section*

8 ☐ **Other Instructions**

_____

_____

_____

Safety Assurances

Line Clearances

9a ☐ Last train No. _____ cleared limits at _____ hours / previous day*

9b ☐ Last track occupancy cleared limits at _____ hours / previous day*

Blocking

10a ☐ Blocking has been applied to prevent conflicting movements

10b ☐ Opposing Train No. _____ / _____ advised of this authority at _____ / _____ hours

Following Movement

11a ☐ Following Train No. _____ confirmed stationary at _____
Location

11b ☐ Following movements cleared section at _____ hours

Authorised by _____ Train Controller
Name

Repeated correct at _____ hours

Repeated correct by Signaller _____ at ____hours*	Repeated correct by Signaller _____ at _____hours*

SWA _____ limits clear and complete at _____ hours *Delete not required

Safe Working Authority SWA-01 Version 1.0 February 2024

SWA-01 Form

4. Written Authority Limit Exceeded

Train Controller

1. When a written authority limit is exceeded, you must apply the instructions in **RP20 Managing Authorities Exceeded, 5. Train Controller Actions**, as with any Limit of Authority exceeded.

5. Train Controller Actions

The following actions must be applied when rail vehicles exceed the authority limit.

Train Controller

1. Follow the requirements detailed in the table below when advised of an authority exceeded.
2. Before gaining clearance and before authorising the movement to proceed, you must ensure:
   a. there are no conflicting movements
   b. the route is correctly set for the ensuing movement
   c. no opposing route or signal has been cleared
3. When clearance is received from the Rail Incident Controller and authorised by the Network Control Manager, issue a new authority to:
   a. proceed, or
   b. set back within the limits of the authority.

Table: After Advice Received of Authority Exceeded

Authority Exceeded	Confirm train has come to a complete stop	Call out RIC	Relieve Crew
ASR			
- SPAD A	**X**	**X**	**X**
- SPAD B	**X**		
- SWA-02	**X**	**X**	**X**
- SWA-03	**X**	**X**	**X**
Mis.71	**X**	**X**	**X**
Mis.51	**X**	**X**	**X**
Mis.60	**X**	**X**	**X**
Mis.87	**X**	**X**	**X**

5.1 Mandatory Relief of Rail Personnel

Train Controller

1. Tell the Network Control Manager that Rail Personnel involved must be relieved of duty.

Network Control Manager

2. Tell the Rail Operating Company’s Service Manager of the Rail Personnel required to be relieved of duty.

IMPORTANT
The Rail Operating Company's Service Manager must ensure any Rail Personnel involved in the overrun of the limits of authority is relieved by sending relief personnel by either a:

- taxi, or
- motor vehicle driven by another person.

Train Controller

3. You must only provide authority for the rail vehicle to proceed/work to continue once:
   a. the relief Rail Personnel have arrived
   b. the Rail Personnel involved have been relieved
   c. authorised by the Network Control Manager.

IMPORTANT
It is unacceptable to relieve Rail Personnel who have been in a stressful event and expect them to self-drive a motor vehicle.

IMPORTANT
The Network Control Manager / Rail Operating Company's Service Manager must arrange victim support counselling in conjunction with the Rail Personnel's Line Manager following serious accidents involving people.

5.2 Clearing the Main Line

There may be occasions where the rail vehicle is located where Rail Personnel relief cannot reach the rail vehicle due to the terrain and access.

Train Controller

1. After consultation with the Network Control Manager, if in a fit state to do so, the Operator may be requested to move the train clear of the main line to the next station or crossing loop.
2. On a passenger train, ensure the Train Manager is in the cab to observe and support the Operator while the train clears the section.
3. On a freight train, another person should accompany the Operator in the cab to provide personal support. This may be any Rail Personnel or a Police Officer.

5.1 Mandatory Relief of Rail Personnel

Train Controller

1. Tell the Network Control Manager that Rail Personnel involved must be relieved of duty.

Network Control Manager

2. Tell the Rail Operating Company's Service Manager of the Rail Personnel required to be relieved of duty.

IMPORTANT
The Rail Operating Company's Service Manager must ensure any Rail Personnel involved in the overrun of the limits of authority is relieved by sending relief personnel by either a:

- taxi, or
- motor vehicle driven by another person.

Train Controller

3. You must only provide authority for the rail vehicle to proceed/work to continue once:
   a. the relief Rail Personnel have arrived
   b. the Rail Personnel involved have been relieved
   c. authorised by the Network Control Manager.

IMPORTANT
It is unacceptable to relieve Rail Personnel who have been in a stressful event and expect them to self-drive a motor vehicle.

IMPORTANT
The Network Control Manager / Rail Operating Company's Service Manager must arrange victim support counselling in conjunction with the Rail Personnel's Line Manager following serious accidents involving people.

5.2 Clearing the Main Line

There may be occasions where the rail vehicle is located where Rail Personnel relief cannot reach the rail vehicle due to the terrain and access.

Train Controller

1. After consultation with the Network Control Manager, if in a fit state to do so, the Operator may be requested to move the train clear of the main line to the next station or crossing loop.
2. On a passenger train, ensure the Train Manager is in the cab to observe and support the Operator while the train clears the section.
3. On a freight train, another person should accompany the Operator in the cab to provide personal support. This may be any Rail Personnel or a Police Officer.

6. Fit for Duty

Line Manager

1. When mandatory Rail Personnel relief has occurred, consider a triggered medical assessment to ensure the person is fit for duty and no underlying causes contributed to the occurrence.
2. Only return Rail Personnel to duty when the investigation has reached a point where it is considered the Rail Personnel is safe to return to operational duties.

IMPORTANT

Rail Personnel with reported or suspected exposure to harmful gases must be sent for a medical assessment by relevant Medical Personnel (i.e., accident and emergency clinic) as soon as practicable.

RP21 Applying a Safe Working Authority

1. Safe Working Authority 01

1.1 Preparation of SWA-01

When preparing any SWA-01, the Train Controller must perform the following checks to ensure it is safe to issue the authority.

1.2 Failure Not Related to Planned Work

When a SWA-01 is required due to a failure not related to planned work:

Train Controller

1. Verify that the section is clear and that the authority is safe to issue.
2. Observe the block open arrows if provided to ascertain the last train direction and identify and locate:
   a. any opposing train(s)
   b. any following train(s)
   c. the previous train to enter the affected section
   d. train movements on adjacent lines.
3. Confirm with the Operator that the rail vehicle(s) concerned are:
   a. complete and clear of an intermediate signal to allow a following movement (only), or
   b. clear of the block section to enable a following/opposing movement.
4. Confirm that any track occupancies authorised to enter the block section after a train, are clear.
5. If a train crossing occurs at the crossing station in advance, tell the Operator of the opposing train that a SWA-01 is about to be issued.
6. Confirm with any Signaller that controls entry to, or exit from the section that the last train has been correctly identified and no other movements have been signalled or authorised.
7. In multi-line areas that allow rail vehicle movements in both directions, confirm that no opposing trains have been wrongly routed to conflict on the affected section and line.

1.3 Planned Work

When a SWA-01 is required for planned work:

Train Controller

1. Confirm with the Rail Protection Officer that it is safe and a clear understanding before starting the SWA-01 issue process.
2. If a SWA-01 is issued to enter or within a protected work area for track maintenance activity:
   a. use Clause 8 and include the following words ‘RPO Authority Also Required’ before entering or within the protected work area, and
   b. calling clear of the signal/board for entry into or within the protected work area.

1.4 Confirmation of Route Protection - SWA-01

In all cases, check and confirm that the route is correctly set and protected.

Train Controller

1. In automatic signalling areas, carry out indication re-checks on the opposing block entry signals in accordance with **Local Network Instructions**.
2. When points detection is not indicated, confirm that the points have been isolated and are correctly set and secured for the intended route.

3. Attempt to clear the signal/route to ensure interlocking is locked.
4. Apply signal blocking to the section concerned to prevent conflicts with other rail vehicles and track occupancies.

Signaller

5. Where you control the interlocking at a station, confirm the:
   a. correct route is set for the movement (advising all isolated points en route)
   b. signals / points have been collared / tagged / blocked to prevent conflicts with other rail vehicles and track occupancies
   c. SWA-01 has been received and repeat it back correctly to the Train Controller.
6. On the Midland Line, tell the Operator that shunting movements outside the departure signal (or in the case of a crossing station outside the fouling point board) must not be made until the rail vehicle to which the SWA-01 is to be issued has arrived complete.

1.5 Transmit the Authority - SWA-01

Train Controller

1. In blue pen, draw the area where the SWA-01 is issued on the train control diagram.
2. Circle the authority number adjacent to the terminating limit of the blue line or beside the blue box.
3. Cross check instructions and arrangements with the adjacent train control desk when they are the Signaller for the interlocked station at the boundary of each area.
4. When a local Signaller is involved with the safety assurances, transmit the SWA-01 to the local Signaller (by email, fax, hand, phone, or radio).
5. Obtain a correct repeat and endorse on the form with the Signaller's location and correct repeat time.
6. Transmit the SWA-01 to the Operator (by hand, phone, or radio) and obtain a correct repeat.

Operator

7. When the SWA-01 is received, repeat the detailed information to the Train Controller.

KiwiRail **Safe Working Authority** **SWA-01**

1 ☐ **Authority Number** 1XXX _____ day ____/____/____ date

2 ☐ **Operator** of _____ at _____

between* _____ and* _____ _____ Line is authorised to:

Single Line Areas

3 ☐ **Pass No.** _____ Signal* / Board* at Stop
- and proceed in accordance with fixed signals*
- for shunting purposes*

Multi Line Areas

4 ☐ **Pass No.** _____ Signal* / Board* at Stop
- and proceed on the _____ main in accordance with fixed signals / Station Entry Board*
- for shunting purposes*

5 ☐ **Set back** from _____

between* _____ and* _____ _____ Line

to _____ in accordance with fixed signals / Station Entry Board

6 ☐ **Points Nos.** ____/____/____ at _____ are secured for the movement

7 ☐ **Call clear and complete of** Intermediate Signal No.* _____ / Block Section*

8 ☐ **Other Instructions**

_____

_____

_____

Safety Assurances

Line Clearances

9a ☐ Last train No. _____ cleared limits at _____ hours / previous day*

9b ☐ Last track occupancy cleared limits at _____ hours / previous day*

Blocking

10a ☐ Blocking has been applied to prevent conflicting movements

10b ☐ Opposing Train No. _____ / _____ advised of this authority at _____ / _____ hours

Following Movement

11a ☐ Following Train No. _____ confirmed stationary at _____ Location

11b ☐ Following movements cleared section at _____ hours

Authorised by _____ Train Controller
Name

Repeated correct at _____ hours

Repeated correct by Signaller _____ at ____hours*	Repeated correct by Signaller _____ at _____hours*

SWA _____ limits clear and complete at _____ hours *Delete not required

Safe Working Authority SWA-01 Version 1.0 February 2024

SWA-01

1.1 Preparation of SWA-01

When preparing any SWA-01, the Train Controller must perform the following checks to ensure it is safe to issue the authority.

1.2 Failure Not Related to Planned Work

When a SWA-01 is required due to a failure not related to planned work:

Train Controller

1. Verify that the section is clear and that the authority is safe to issue.
2. Observe the block open arrows if provided to ascertain the last train direction and identify and locate:
   a. any opposing train(s)
   b. any following train(s)
   c. the previous train to enter the affected section
   d. train movements on adjacent lines.
3. Confirm with the Operator that the rail vehicle(s) concerned are:
   a. complete and clear of an intermediate signal to allow a following movement (only), or
   b. clear of the block section to enable a following/opposing movement.
4. Confirm that any track occupancies authorised to enter the block section after a train, are clear.
5. If a train crossing occurs at the crossing station in advance, tell the Operator of the opposing train that a SWA-01 is about to be issued.
6. Confirm with any Signaller that controls entry to, or exit from the section that the last train has been correctly identified and no other movements have been signalled or authorised.
7. In multi-line areas that allow rail vehicle movements in both directions, confirm that no opposing trains have been wrongly routed to conflict on the affected section and line.

1.3 Planned Work

When a SWA-01 is required for planned work:

Train Controller

1. Confirm with the Rail Protection Officer that it is safe and a clear understanding before starting the SWA-01 issue process.
2. If a SWA-01 is issued to enter or within a protected work area for track maintenance activity:
   a. use Clause 8 and include the following words ‘RPO Authority Also Required’ before entering or within the protected work area, and
   b. calling clear of the signal/board for entry into or within the protected work area.

1.4 Confirmation of Route Protection - SWA-01

In all cases, check and confirm that the route is correctly set and protected.

Train Controller

1. In automatic signalling areas, carry out indication re-checks on the opposing block entry signals in accordance with **Local Network Instructions**.
2. When points detection is not indicated, confirm that the points have been isolated and are correctly set and secured for the intended route.
3. Attempt to clear the signal/route to ensure interlocking is locked.
4. Apply signal blocking to the section concerned to prevent conflicts with other rail vehicles and track occupancies.

Signaller

5. Where you control the interlocking at a station, confirm the:
   a. correct route is set for the movement (advising all isolated points en route)
   b. signals / points have been collared / tagged / blocked to prevent conflicts with other rail vehicles and track occupancies
   c. SWA-01 has been received and repeat it back correctly to the Train Controller.
6. On the Midland Line, tell the Operator that shunting movements outside the departure signal (or in the case of a crossing station outside the fouling point board) must not be made until the rail vehicle to which the SWA-01 is to be issued has arrived complete.

1.5 Transmit the Authority - SWA-01

Train Controller

1. In blue pen, draw the area where the SWA-01 is issued on the train control diagram.
2. Circle the authority number adjacent to the terminating limit of the blue line or beside the blue box.
3. Cross check instructions and arrangements with the adjacent train control desk when they are the Signaller for the interlocked station at the boundary of each area.
4. When a local Signaller is involved with the safety assurances, transmit the SWA-01 to the local Signaller (by email, fax, hand, phone, or radio).
5. Obtain a correct repeat and endorse on the form with the Signaller's location and correct repeat time.
6. Transmit the SWA-01 to the Operator (by hand, phone, or radio) and obtain a correct repeat.

Operator

7. When the SWA-01 is received, repeat the detailed information to the Train Controller.

KiwiRail **Safe Working Authority** **SWA-01**

1 ☐ **Authority Number** 1XXX _____ day ____/____/____ date

2 ☐ **Operator** of _____ at _____

between* _____ and* _____ _____ Line is authorised to:

Single Line Areas

3 ☐ **Pass No.** _____ Signal* / Board* at Stop
- and proceed in accordance with fixed signals*
- for shunting purposes*

Multi Line Areas

4 ☐ **Pass No.** _____ Signal* / Board* at Stop
- and proceed on the _____ main in accordance with fixed signals / Station Entry Board*
- for shunting purposes*

5 ☐ **Set back** from _____

between* _____ and* _____ _____ Line

to _____ in accordance with fixed signals / Station Entry Board

6 ☐ **Points Nos.** ____/____/____ at _____ are secured for the movement

7 ☐ **Call clear and complete of** Intermediate Signal No.* _____ / Block Section*

8 ☐ **Other Instructions**

_____

_____

_____

Safety Assurances

Line Clearances

9a ☐ Last train No. _____ cleared limits at _____ hours / previous day*

9b ☐ Last track occupancy cleared limits at _____ hours / previous day*

Blocking

10a ☐ Blocking has been applied to prevent conflicting movements

10b ☐ Opposing Train No. _____ / _____ advised of this authority at _____ / _____ hours

Following Movement

11a ☐ Following Train No. _____ confirmed stationary at _____ Location

11b ☐ Following movements cleared section at _____ hours

Authorised by _____ Train Controller
Name

Repeated correct at _____ hours

Repeated correct by Signaller _____ at ____hours*	Repeated correct by Signaller _____ at _____hours*

SWA _____ limits clear and complete at _____ hours *Delete not required

Safe Working Authority SWA-01 Version 1.0 February 2024

SWA-01

2. Safe Working Authority 02

2.1 Preparation of SWA-02

When preparing any SWA-02, in the event of a disabled train, the Train Controller must perform the following checks to ensure it is safe to issue the authority:

Train Controller

1. Establish where the relief rail vehicle is being provided from.
2. Tell the Operator of the disabled train the direction the relief will come from.
3. Establish the exact location of a disabled train using the:
   a. line
   b. direction of travel
   c. location on the line in accordance with **RP13 Identification and Verification of Location**.
4. Confirm whether detonator protection is being used.
5. Confirm with the Operator of the disabled train that their train is complete by using the following:
   a. onboard systems, or
   b. the Operator establishes the train is complete (checking the rear of the train).

2.2 Conflict with Occupancies

Train Controller

1. Check that the SWA-02 authority will not conflict with other rail vehicle/track occupancies by:
   a. confirming the location of all other rail vehicles in the block section and adjacent lines.
   b. multi-line areas with rail movements in both directions confirm that no opposing rail vehicle(s) have been wrongly routed to conflict on the affected section and line.

2.3 Confirmation of Route Protection - SWA-02

In all cases, check and confirm that the route is correctly set and protected.

Train Controller

1. In automatic signalling areas, carry out indication re-check on the opposing block entry signals in accordance with the **Local Network instructions**.
2. When points detection is not indicated, confirm that the points have been isolated and are correctly set and secured for the intended route.
3. Attempt to clear the signal/route to ensure interlocking is locked.
4. Apply signal blocking to the section concerned to prevent conflicts with other rail vehicles and track occupancies.

Signaller

5. Where you control the interlocking at a station, confirm the:
   a. correct route is set for the movement (advising all isolated points en route)
   b. signals / points have been collared / tagged / blocked to prevent conflicts with other rail vehicles and track occupancies
   c. SWA-02 has been received and repeat it back correctly to the Train Controller.
6. Switch in local Signal Boxes where possible to assist with the recovery of the train.

Operator

7. When the SWA-02 is received, repeat the information to the Train Controller.

2.4 Additional Checks

If a train is to be recovered to the station in the rear before the SWA-02 is issued to Operator(s), undertake the following additional checks before authorising the setting back of the disabled train.

Train Controller

1. Confirm that there are no following movements in the section behind the rear of the disabled train and the station in the rear.
2. Confirm that any track occupancies authorised to enter the block section after a train are clear.
3. Tell the Operator of any opposing rail vehicles crossing/waiting to use the affected line at the crossing station in the rear.
4. Issue the SWA-02 to the Signaller at the station in the rear (when locally controlled).

2.5 Transmit the Authority - SWA-02

Train Controller

1. Draw the area for which the SWA-02 is issued in blue pen on the train control diagram.
2. Circle the authority number beside the blue box.
3. Cross check instructions and arrangements with the adjacent train control desk when they are the Signaller for the interlocked station at the boundary of each area.
4. When a local Signaller is involved with the safety assurances, transmit the SWA-02 to the local Signaller (by email, fax, hand, phone, or radio)
5. Obtain a correct repeat and endorse on the form with the Signaller's location and correct repeat time.

Operator

When the SWA-02 is received, repeat the detailed information to the Train Controller.

KiwiRail

Safe Working Authority – Disabled Train SWA-02

Operator of Disabled Train only receives Clauses 1 – 3

1 ☐ **Authority Number** 2XXX _____ day ____/____/____ date

2 ☐ **Operator** Disabled Train No._____ **must not move from** _____

between _____ and _____ _____ Line

until arrival of _____ as relief locomotive from _____

Protection

3a ☐ Detonator protection has been provided, or

3b ☐ Detonator protection **cannot** be provided

Authorisations

4 ☐ **Operator** of Relief _____ at _____ is authorised to:

Single Line Areas

5 ☐ **Pass No.** _____ Signal* / Board* at Stop and proceed in accordance with fixed signals to the disabled train

Multi Line Areas

6 ☐ **Pass No.** _____ Signal* / Board* at Stop and proceed on the _____ main in accordance with fixed signals to the disabled train

Absolute Intermediate Signals

7 ☐ **Stop Train** at Signal No._____ then continue at Restricted Speed to the disabled train

8 ☐ **Remove** train* _____ or portion of* _____ to _____

in accordance with fixed signals / Station Entry board

9 ☐ **Points Nos.** ____/____/____ at _____ are secured for the movement

10 ☐ **Other Instructions**

_____

_____

Safety Assurances

Blocking

11 ☐ Blocking has been applied to prevent conflicting movements

Following Movement

12 ☐ Following movements cleared section at _____ hours

Authorised by _____ Train Controller

Name

Repeated correct at:		Repeated correct at:	
Operator of Disabled Train	_____ hours	Signaller*	_____ hours
Operator of Relief	_____ hours	Signaller*	_____ hours

SWA _____ limits clear and complete at _____ hours *Delete not required

Safe Working Authority SWA-02 Version 1.0 February 2024

SWA-02

2.1 Preparation of SWA-02

When preparing any SWA-02, in the event of a disabled train, the Train Controller must perform the following checks to ensure it is safe to issue the authority:

Train Controller

1. Establish where the relief rail vehicle is being provided from.
2. Tell the Operator of the disabled train the direction the relief will come from.
3. Establish the exact location of a disabled train using the:
   a. line
   b. direction of travel
   c. location on the line in accordance with **RP13 Identification and Verification of Location**.
4. Confirm whether detonator protection is being used.
5. Confirm with the Operator of the disabled train that their train is complete by using the following:
   a. onboard systems, or
   b. the Operator establishes the train is complete (checking the rear of the train).

2.2 Conflict with Occupancies

Train Controller

1. Check that the SWA-02 authority will not conflict with other rail vehicle/track occupancies by:
   a. confirming the location of all other rail vehicles in the block section and adjacent lines.
   b. multi-line areas with rail movements in both directions confirm that no opposing rail vehicle(s) have been wrongly routed to conflict on the affected section and line.

2.3 Confirmation of Route Protection - SWA-02

In all cases, check and confirm that the route is correctly set and protected.

Train Controller

1. In automatic signalling areas, carry out indication re-check on the opposing block entry signals in accordance with the **Local Network instructions**.
2. When points detection is not indicated, confirm that the points have been isolated and are correctly set and secured for the intended route.
3. Attempt to clear the signal/route to ensure interlocking is locked.
4. Apply signal blocking to the section concerned to prevent conflicts with other rail vehicles and track occupancies.

Signaller

5. Where you control the interlocking at a station, confirm the:
   a. correct route is set for the movement (advising all isolated points en route)
   b. signals / points have been collared / tagged / blocked to prevent conflicts with other rail vehicles and track occupancies
   c. SWA-02 has been received and repeat it back correctly to the Train Controller.
6. Switch in local Signal Boxes where possible to assist with the recovery of the train.

Operator

7. When the SWA-02 is received, repeat the information to the Train Controller.

2.4 Additional Checks

If a train is to be recovered to the station in the rear before the SWA-02 is issued to Operator(s), undertake the following additional checks before authorising the setting back of the disabled train.

Train Controller

1. Confirm that there are no following movements in the section behind the rear of the disabled train and the station in the rear.
2. Confirm that any track occupancies authorised to enter the block section after a train are clear.
3. Tell the Operator of any opposing rail vehicles crossing/waiting to use the affected line at the crossing station in the rear.
4. Issue the SWA-02 to the Signaller at the station in the rear (when locally controlled).

2.5 Transmit the Authority - SWA-02

Train Controller

1. Draw the area for which the SWA-02 is issued in blue pen on the train control diagram.
2. Circle the authority number beside the blue box.
3. Cross check instructions and arrangements with the adjacent train control desk when they are the Signaller for the interlocked station at the boundary of each area.
4. When a local Signaller is involved with the safety assurances, transmit the SWA-02 to the local Signaller (by email, fax, hand, phone, or radio)
5. Obtain a correct repeat and endorse on the form with the Signaller's location and correct repeat time.

Operator

When the SWA-02 is received, repeat the detailed information to the Train Controller.

KiwiRail

Safe Working Authority – Disabled Train SWA-02

Operator of Disabled Train only receives Clauses 1 – 3

1 ☐ **Authority Number** 2XXX _____ day ____/____/____ date

2 ☐ **Operator** Disabled Train No._____ **must not move from** _____

between _____ and _____ _____ Line

until arrival of _____ as relief locomotive from _____

Protection

3a ☐ Detonator protection has been provided, or

3b ☐ Detonator protection **cannot** be provided

Authorisations

4 ☐ **Operator** of Relief _____ at _____ is authorised to:

Single Line Areas

5 ☐ **Pass No.** _____ Signal* / Board* at Stop and proceed in accordance with fixed signals to the disabled train

Multi Line Areas

6 ☐ **Pass No.** _____ Signal* / Board* at Stop and proceed on the _____ main in accordance with fixed signals to the disabled train

Absolute Intermediate Signals

7 ☐ **Stop Train** at Signal No._____ then continue at Restricted Speed to the disabled train

8 ☐ **Remove** train* _____ or portion of* _____ to _____

in accordance with fixed signals / Station Entry board

9 ☐ **Points Nos.** ____/____/____ at _____ are secured for the movement

10 ☐ **Other Instructions**

_____

_____

Safety Assurances

Blocking

11 ☐ Blocking has been applied to prevent conflicting movements

Following Movement

12 ☐ Following movements cleared section at _____ hours

Authorised by _____ Train Controller

Name

Repeated correct at:		Repeated correct at:	
Operator of Disabled Train	_____ hours	Signaller*	_____ hours
Operator of Relief	_____ hours	Signaller*	_____ hours

SWA limits clear and complete at _____ hours *Delete not required

Safe Working Authority SWA-02 Version 1.0 February 2024

SWA-02

3. Safe Working Authority 03

3.1 Preparation of SWA-03

When preparing any SWA-03, the Train Controller must perform the following checks to ensure it is safe to issue the authority.

3.2 MTMV and Work Trains

The SWA-03 is used by MTMVs and work trains to enter and/or work within a single protected work area to pass absolute signals when working under the direction of the Rail Protection Officer.

Train Controller

1. Confirm with the Operator of the MTMV or work train their identity and location.
2. Cross-check with any Signaller that controls entry into the protected work area.
3. Confirm with the Rail Protection Officer that it is safe, and that there is a clear understanding before starting the safe working authority issue process.
4. If a SWA-03 is issued to enter or within a protected work area, use Clause 7 and include the following words ‘RPO Authority Also Required’ before entering or within a section of track in a protected work area.
5. If the route is required to be changed, cancel the SWA-03, set up a new route, and then issue a new SWA-03.
6. In multi-line areas that allow rail movements in both directions, confirm that no opposing rail vehicles have been wrongly routed to conflict on the affected section and line.

3.3 Confirmation of Route Protection - SWA-03

In all cases, check and confirm that the route is correctly set and protected.

Train Controller

1. Apply signal blocking to the section concerned to prevent conflicts with other rail vehicles and track occupancies.
2. When points detection is not indicated, confirm that the points have been isolated and correctly set and secured for the intended route.
3. Attempt to clear the signal/route to ensure interlocking is locked.
4. Use double blocking (where available) when there are multiple requirements for signal blocking.

Signaller

5. Where you control the interlocking at a station, confirm the:
   a. correct route is set for the movement (advising all isolated points en route)
   b. signals / points have been collared / tagged / blocked to prevent conflicts with other rail vehicles and track occupancies
   c. SWA-03 has been received and repeat it back correctly to the Train Controller.
6. In ASR and Midland Line Automatic Signalling areas, tell the Operator that shunting movements outside the departure signal (or in the case of a crossing station outside the fouling point board) must only be made when the train to which the SWA-03 is to be issued has arrived complete.

3.4 Transmit the Authority - SWA-03

Train Controller

1. Draw the area for which the SWA-03 is issued in blue pen on the train control diagram.
2. Circle the authority number adjacent to the terminating limit of the blue line or beside the blue box.
3. Cross check instructions and arrangements with the adjacent train control desk when they are the Signaller for the interlocked station at the boundary of each area.

4. When a local Signaller is involved with the safety assurances, transmit the SWA-03 to the local Signaller (by email, fax, hand, phone, or radio).
5. Obtain a correct repeat and endorse on the form with the Signaller's location and correct repeat time.
6. Transmit the SWA-03 to the Operator (by hand, phone, or radio) and obtain a correct repeat.

Operator

7. When the SWA-03 is received, repeat the detailed information to the Train Controller.

KiwiRail

Safe Working Authority SWA-03

For MTMV / Work Train use only, into and within Protected Work Area limits

1 ☐ **Authority Number** 3XXX _____ day ___/___/___ date

Working under the directions of the Rail Protection Officer _____

(advised at _____ hours)

2 ☐ **Operator** of _____ at _____ is authorised to

3 ☐ **Pass Signal Nos.** ___/___/___/___/___/___ at _____

☐ **Pass Signal Nos.** ___/___/___/___/___/___ at _____

4 ☐ **Pass Station Entry Board No.** _____ at _____

5 ☐ **Pass Block Entry Board No.** _____ at _____

6 ☐ **Pass Intermediate Signal Nos.** ___/___/___/___/___/___/___/___/___

The Operator must stop at each signal / board to positively identify the signal / board listed above, then wait 10 seconds before proceeding.

This authority to pass the signals / boards listed above continues to apply until this authority is cancelled.

This form is not an authority to pass "Site Limit Boards"

7 ☐ **Other Instructions**

_____

_____

_____

Safety Assurances

Points

8 ☐ **Points Nos.** ___/___/___ at _____ are secured for the movement(s)

☐ **Points Nos.** ___/___/___ at _____ are secured for the movement(s)

Blocking

9 ☐ Blocking has been applied to the above signals and points to prevent conflicting movements

Authorised by _____ Train Controller

Name

Repeated correct at _____ hours

Repeated correct by Signaller _____ at _____hours*

SWA _____ cancelled at _____ hours

*Delete not required

Safe Working Authority SWA-03 Version 2.0 September 2024

SWA-03

3.1 Preparation of SWA-03

When preparing any SWA-03, the Train Controller must perform the following checks to ensure it is safe to issue the authority.

3.2 MTMV and Work Trains

The SWA-03 is used by MTMVs and work trains to enter and/or work within a single protected work area to pass absolute signals when working under the direction of the Rail Protection Officer.

Train Controller

1. Confirm with the Operator of the MTMV or work train their identity and location.
2. Cross-check with any Signaller that controls entry into the protected work area.
3. Confirm with the Rail Protection Officer that it is safe, and that there is a clear understanding before starting the safe working authority issue process.
4. If a SWA-03 is issued to enter or within a protected work area, use Clause 7 and include the following words ‘RPO Authority Also Required’ before entering or within a section of track in a protected work area.
5. If the route is required to be changed, cancel the SWA-03, set up a new route, and then issue a new SWA-03.
6. In multi-line areas that allow rail movements in both directions, confirm that no opposing rail vehicles have been wrongly routed to conflict on the affected section and line.

3.3 Confirmation of Route Protection - SWA-03

In all cases, check and confirm that the route is correctly set and protected.

Train Controller

1. Apply signal blocking to the section concerned to prevent conflicts with other rail vehicles and track occupancies.
2. When points detection is not indicated, confirm that the points have been isolated and correctly set and secured for the intended route.
3. Attempt to clear the signal/route to ensure interlocking is locked.
4. Use double blocking (where available) when there are multiple requirements for signal blocking.

Signaller

5. Where you control the interlocking at a station, confirm the:
   a. correct route is set for the movement (advising all isolated points en route)
   b. signals / points have been collared / tagged / blocked to prevent conflicts with other rail vehicles and track occupancies
   c. SWA-03 has been received and repeat it back correctly to the Train Controller.
6. In ASR and Midland Line Automatic Signalling areas, tell the Operator that shunting movements outside the departure signal (or in the case of a crossing station outside the fouling point board) must only be made when the train to which the SWA-03 is to be issued has arrived complete.

3.4 Transmit the Authority - SWA-03

Train Controller

1. Draw the area for which the SWA-03 is issued in blue pen on the train control diagram.
2. Circle the authority number adjacent to the terminating limit of the blue line or beside the blue box.
3. Cross check instructions and arrangements with the adjacent train control desk when they are the Signaller for the interlocked station at the boundary of each area.
4. When a local Signaller is involved with the safety assurances, transmit the SWA-03 to the local Signaller (by email, fax, hand, phone, or radio).

5. Obtain a correct repeat and endorse on the form with the Signaller's location and correct repeat time.
6. Transmit the SWA-03 to the Operator (by hand, phone, or radio) and obtain a correct repeat.

Operator

7. When the SWA-03 is received, repeat the detailed information to the Train Controller.

KiwiRail

Safe Working Authority SWA-03

For MTMV / Work Train use only, into and within Protected Work Area limits

1 ☐ **Authority Number** 3XXX _____ day ____/____/____ date

Working under the directions of the Rail Protection Officer _____

(advised at _____ hours)

2 ☐ **Operator** of _____ at _____ is authorised to

3 ☐ **Pass Signal Nos.** ____/____/____/____/____/____ at _____

☐ **Pass Signal Nos.** ____/____/____/____/____/____ at _____

4 ☐ **Pass Station Entry Board No.** _____ at _____

5 ☐ **Pass Block Entry Board No.** _____ at _____

6 ☐ **Pass Intermediate Signal Nos.** ____/____/____/____/____/____/____/____/____

The Operator must stop at each signal / board to positively identify the signal / board listed above, then wait 10 seconds before proceeding.

This authority to pass the signals / boards listed above continues to apply until this authority is cancelled.

This form is not an authority to pass "Site Limit Boards"

7 ☐ **Other Instructions**

_____

_____

_____

Safety Assurances

Points

8 ☐ **Points Nos.** ____/____/____ at _____ are secured for the movement(s)

☐ **Points Nos.** ____/____/____ at _____ are secured for the movement(s)

Blocking

9 ☐ Blocking has been applied to the above signals and points to prevent conflicting movements

Authorised by _____ Train Controller

Name

Repeated correct at _____ hours

Repeated correct by Signaller _____ at _____hours*

SWA _____ cancelled at _____ hours

*Delete not required

Safe Working Authority SWA-03 Version 2.0 September 2024

SWA-03