Planning Guidance:

Management of Runaway Risk NR/L2/OHS/019 – Module 05

Version	Date	Comments
1.1	05 January 2021	First issued document

CONTENTS

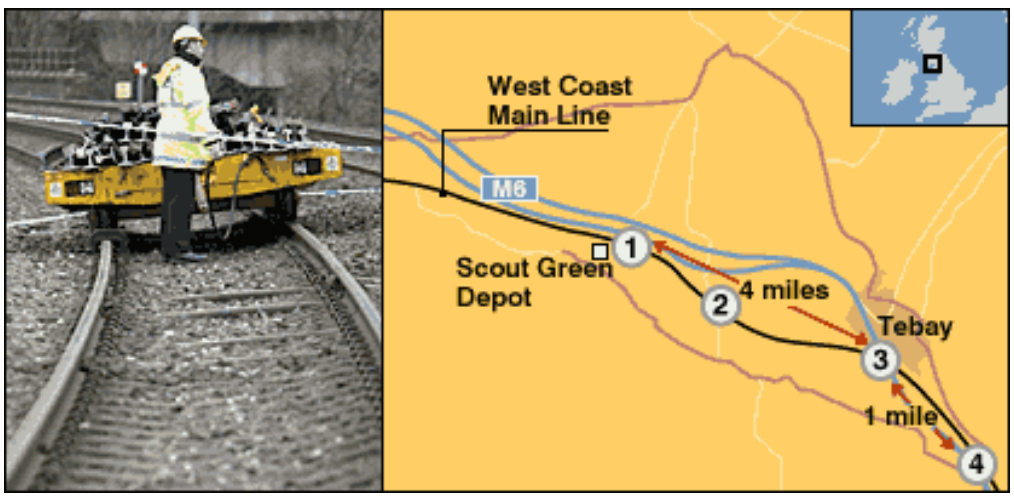
1. DEFINITIONS

Term	Definition
	See the definitions in NR/L2/OHS/019. The following terms and definitions apply to this module only:
Runaway	The unauthorised and uncontrolled movement of Rail Mounted Plant.
Rail mounted plant	Any plant that has rail wheels or runners that can run on the track either self-propelled or manually propelled. This includes on track machines, on track plant, trolleys, skates, scooters, etc. (as per NR/L2/RMVP/0200)
Watchman	Person appointed to warn of an approaching runaway
At Risk Gradient	A gradient steeper than 1 in 100, on diagrams/spreadsheets this will be a number between 1 and a 100 i.e. 67 and 98 would be at-risk gradients, whereas 127 and 300 would not be.

3. INTRODUCTION

Background

Following the tragic accident at Tebay in February 2004 where four colleagues were killed and six seriously injured when a faulty trailer ran away in a possession, and several subsequent runaway events, Network Rail and the Trade Unions agreed to work together to improve the arrangements for dealing with runaway risk. This work included a review of the effectiveness of current arrangements and an agreement to introduce a formal hierarchy of controls that would eliminate or reduce the risks associated with runaways in possessions. This concluded with the NR/L2/OHS/019/Module 05 – Management of Runaway Risk standard being introduced.



Purpose

The purpose of this guidance document is to provide guidance on how the requirements of NR/L2/OHS/019/Module 05 – Managing Runaway Risk should be delivered within Network Rail Route Businesses.

This document is complementary to NR/L2/OHS/019 – Safety of people at work on or near the line standard and can be used in conjunction with existing rule books, regulations, legislation, standards, processes and procedures.

The Principals of Prevention described in current Health and Safety legislation have been followed in the production of the guidance given in this document.

Scope

This document defines the principles and processes for the planning and implementation processes for work deemed at risk from the runaway of Rail Mounted Plant in possessions.

This guidance is for:

a) responsible managers;

b) planners;

c) persons in charge; and

d) anyone involved in the planning and implementation of work deemed at risk from runaways.

4. RUNAWAY RISK IDENTIFICATION

Locations with specific runaway risks

The Responsible Manager/Planner/Person in Charge shall use the following criteria to identify if there a risk of runaway might affect the site of work.

A site of work is deemed at risk of runaway where Rail Mounted Plant is to be used and **all** of the following conditions apply.

- The site of work is on a gradient steeper than 1 in 100 or has a gradient steeper than 1 in 100 (partially or fully contained within a Possession) within 5 miles of the site of work and uphill of your site of work;
- The site of work is in or adjacent to a Possession;
- Work is taking place on or near the line.

When all the above conditions apply then suitable mitigation must be put in place to protect staff from the risk of runaway.

It should be noted the requirements above have been developed from analysis of previous incidents over several years. No runaways have occurred at gradients less than 1 in 100 and no Runaway has travelled in excess of 5 miles Further information can be found at: https://safety.networkrail.co.uk/safety/managing-the-risk-of- runaways/

Note: Work within a line blockage that is deemed at risk from runaway should apply the same hierarchy of controls as used for sites of work within an engineering possession.

Identifying the Gradients

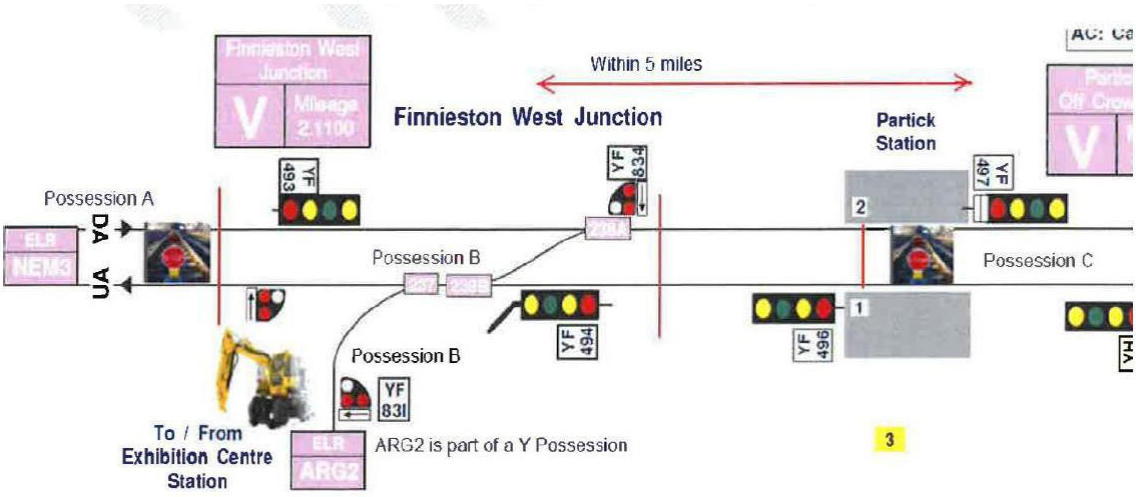
The site of work is on a gradient steeper than 1 in 100 or has a gradient steeper than 1 in 100 within 5 miles of the site of work. The sources for the first of the criteria are as follows:

- GeoRINM
- Gradient Spreadsheet – Be aware that spreadsheet on SSOWPS is incomplete and there are LOR's missing i.e. Larkhall Branch.
- 5 Mile Diagrams – again not all ELR's / routes covered.
- Some TAP Diagrams. New TAP Diagrams are being produced that show gradients and areas of risk (currently Scotland only).
- Hazard Directory.
- Local knowledge/site visit
- OnTrac (Registered Users only) – Any gradients within 5 miles of the planned worksite mileage steeper than 1 in 100 are automatically highlighted on the SWP, this shows the sectional appendix LOR's and will need to be read in conjunction with the above documentation to confirm direction of gradient(s)

Work adjacent to others

When identifying " Adjacent" it is not only vital that you check any Route/ELR you are working on for a gradient steeper than 1 in 100 within a possession but also any adjoining route. In the example below dependent on gradients possession C could be at risk from both possessions A and B.

Below shows that while there is no risk from the NEM3 ELR section of possession B, however there is a risk from ELR ARG2 dependent on the position of 237 and 238 points.



The gradient spreadsheet

The gradient value either has no prefix or is prefixed by a minus sign, this indicates the direction of the spreadsheet and is read low to high mileage.

CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	40.1583	41.0176	-80
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	41.0176	41.0880	-95
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	42.0087	42.0422	84
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	42.0422	42.1654	-60
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	42.1654	43.0844	-50
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	43.0985	43.1337	-51
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	43.1337	43.1583	-69
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	43.1583	44.0246	-47
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	44.0246	44.0686	-66
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	44.0880	44.1284	-50
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	44.1284	44.1619	-86
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	44.1619	45.0123	-47
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	45.0334	45.0739	-51
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	45.0739	45.1337	-86
CRIANLARICH JN - OBAN STATION (CRIANLARICH LOWER J	SC143	45.1337	45.1742	-49

Table 1: Gradient chart

Reading the Spreadsheet

The gradient highlighted in yellow in Table 1 has no minus prefix and is therefore read as being uphill between 42m 87yds and 42m 422yds

The risk of runaway is therefore back towards the low mileage i.e. left-hand side of the diagram below:

The gradient highlighted in blue in Table 1 has a minus prefix and is therefore read as being downhill from the 44m 246yds to 44m 6876yds

The risk of runaway is therefore towards the higher mileage i.e. the right-hand side of the diagram.

When runaway risk is identified in SSOWPS this is highlighted to other planners by the symbol on the Search Plans page. It should be noted that currently the Contractor community use OnTrac and not SSOWPS.

Information on runaway as displayed in OnTrac

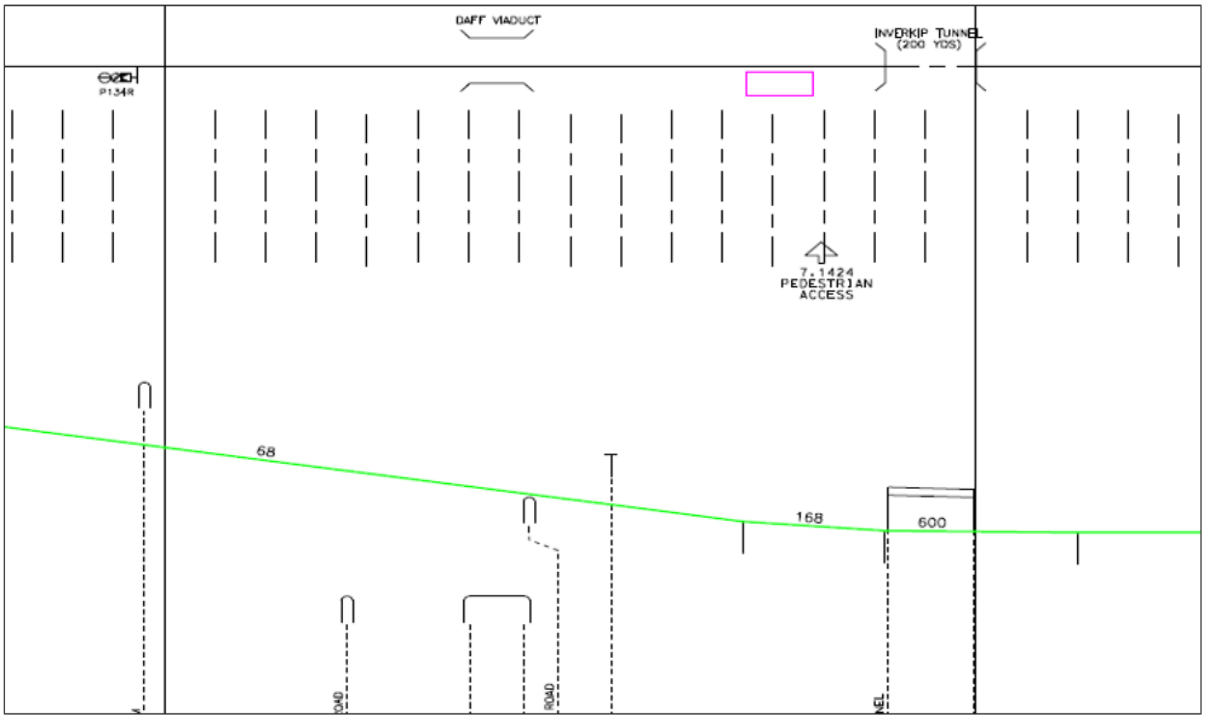
Gradient information is shown in *Section 7* of the SWP.

SPC2 GRADIENTS BETWEEN: 50.1430 AND 64.1540 (Gradient data will be displayed 5 miles either side of your chosen worksite, within this ELR only)

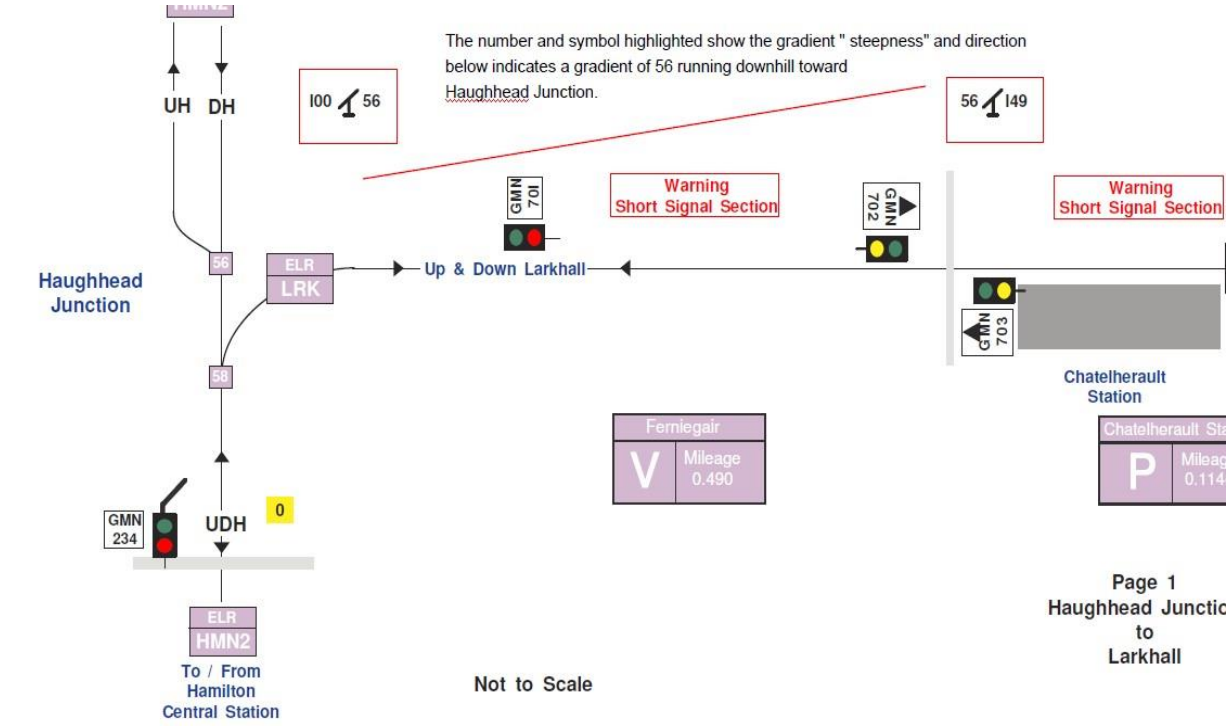
Mileage ELR Description	LOR	From	To	Gradient
BEDFORD - WELLINGBOROUGH {SEE ALSO WYM}	LN3201	55.1654	56.0422	1:100

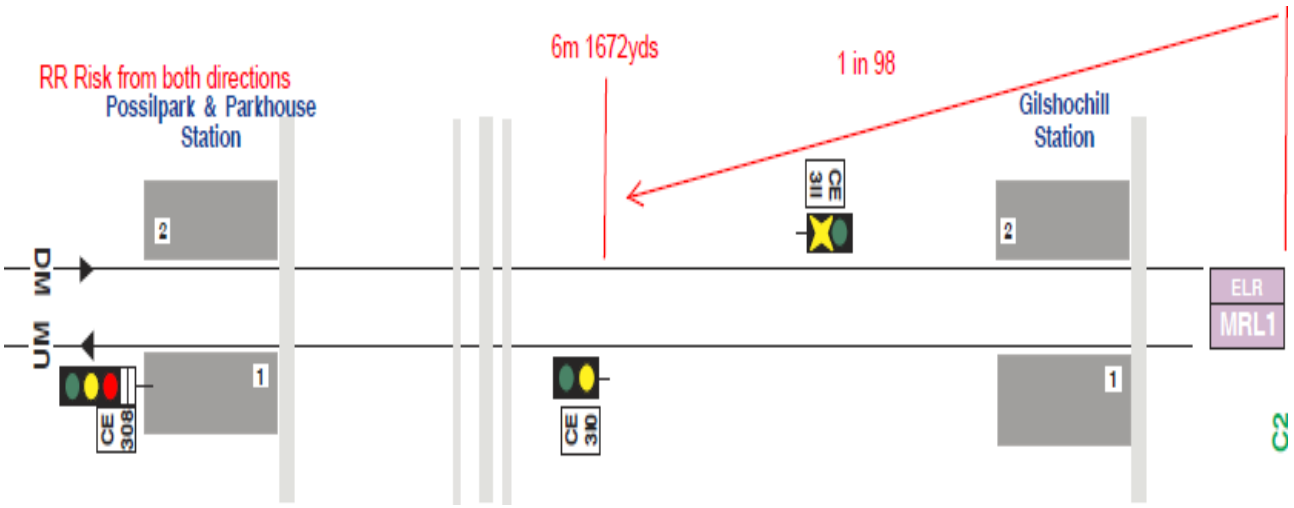
5-Mile Diagrams

Available via the Connect pages they give a visual indication of the direction of the gradient, not all ELR's are covered by the 5-mile diagrams. They give distance in both miles and Kilometers, plus display ref locations etc.



TAP Diagrams

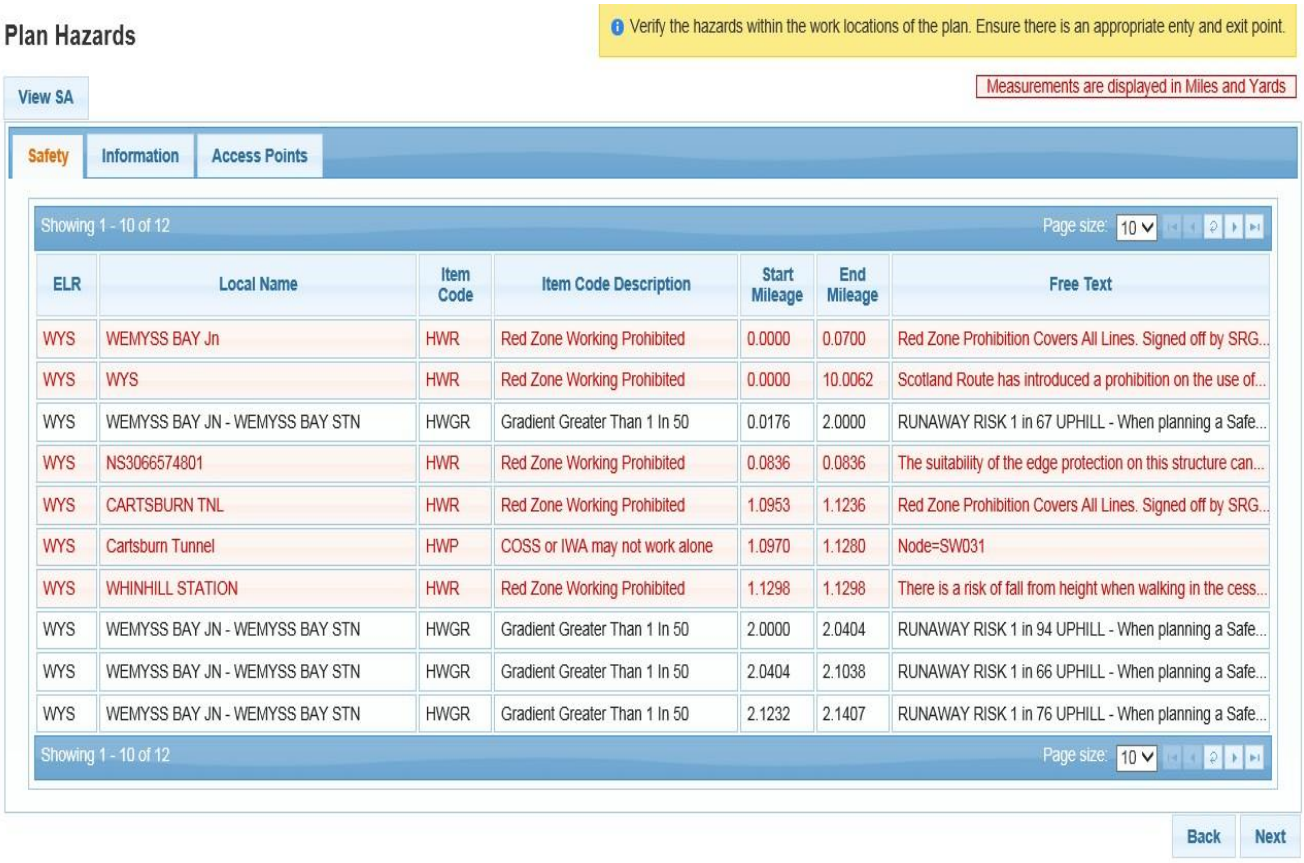




Hazard Directory

The National Hazard Directory (NHD) is issued by Network Rail to provide information on those hazards recorded as present on Network Rail's. The document can be accessed online, via the Portal, SSOWPS or OnTrac. If you are running a custom search in the Hazard Directory select HWGR in the Item Code.

Note – Item Code HWGR Description states "Gradient Greater Than 1 in 50" but actually lists gradients Greater than 1 in 100.



ELR	Local Name	Item Code	Item Code Description	Start Mileage	End Mileage	Free Text
WYS	WEMYSS BAY Jn	HWR	Red Zone Working Prohibited	0.0000	0.0700	Red Zone Prohibition Covers All Lines. Signed off by SRG...
WYS	WYS	HWR	Red Zone Working Prohibited	0.0000	10.0062	Scotland Route has introduced a prohibition on the use of...
WYS	WEMYSS BAY JN - WEMYSS BAY STN	HWGR	Gradient Greater Than 1 In 50	0.0176	2.0000	RUNAWAY RISK 1 in 67 UPHILL - When planning a Safe...
WYS	NS3066574801	HWR	Red Zone Working Prohibited	0.0836	0.0836	The suitability of the edge protection on this structure can...
WYS	CARTSBURN TNL	HWR	Red Zone Working Prohibited	1.0953	1.1236	Red Zone Prohibition Covers All Lines. Signed off by SRG...
WYS	Cartsburn Tunnel	HWP	COSS or IWA may not work alone	1.0970	1.1280	Node=SW031
WYS	WHINHILL STATION	HWR	Red Zone Working Prohibited	1.1298	1.1298	There is a risk of fall from height when walking in the cess...
WYS	WEMYSS BAY JN - WEMYSS BAY STN	HWGR	Gradient Greater Than 1 In 50	2.0000	2.0404	RUNAWAY RISK 1 in 94 UPHILL - When planning a Safe...
WYS	WEMYSS BAY JN - WEMYSS BAY STN	HWGR	Gradient Greater Than 1 In 50	2.0404	2.1038	RUNAWAY RISK 1 in 66 UPHILL - When planning a Safe...
WYS	WEMYSS BAY JN - WEMYSS BAY STN	HWGR	Gradient Greater Than 1 In 50	2.1232	2.1407	RUNAWAY RISK 1 in 76 UPHILL - When planning a Safe...

Local knowledge can be invaluable as not all the ELR's/LOR are covered by the above documentation, particularly branch lines with low line speeds (i.e. below 20mph).

Don't assume that because the LOR/ELR you are working on does not appear in the sources above that no " at risk" gradient exist, ask experienced members of your team for any information they may have on the location of the work regards gradients, , if unable to confirm the gradient is not steeper than 1 in 100 then mitigate using hierarchy of controls.

Work in a Possession

When planning works the requirement for using On-Track Plant (OTP) is that these machines can only work within a Possession. The planner will learn at the PDR/Planning Meetings whether they must apply for a Possession or a Line Blockage.

When planning to use manually propelled equipment which could work in both a Possession or Line Block ensure that you get confirmation from your Responsible Manager which type of block you should book.

Work on or near the Line

The planner in most scenario's would know from the type of work and their experience whether the work is on or near the line, however if unsure then ask your Manager or PIC to supply this information or ascertain this information at the PDR/Planning meeting.

4. HIERARCHY OF CONTROLS IF A RUNAWAY RISK COULD BE CREATED

When using Rail Mounted Plant on a gradient greater than 1 in 100 you are deemed to be introducing a risk of runaway and you should seek to mitigate any potential runaway by isolating the risk to those working Downhill of your work.

The method of this mitigation will be most likely the use of Primary Protection.

1. Re-planning the works to a date when there is less chance of other works being downhill of you.
2. Setting Points to take any runaway into a Sidings.
3. Taking out a rail as part of the work.

Primary protection - Setting Points

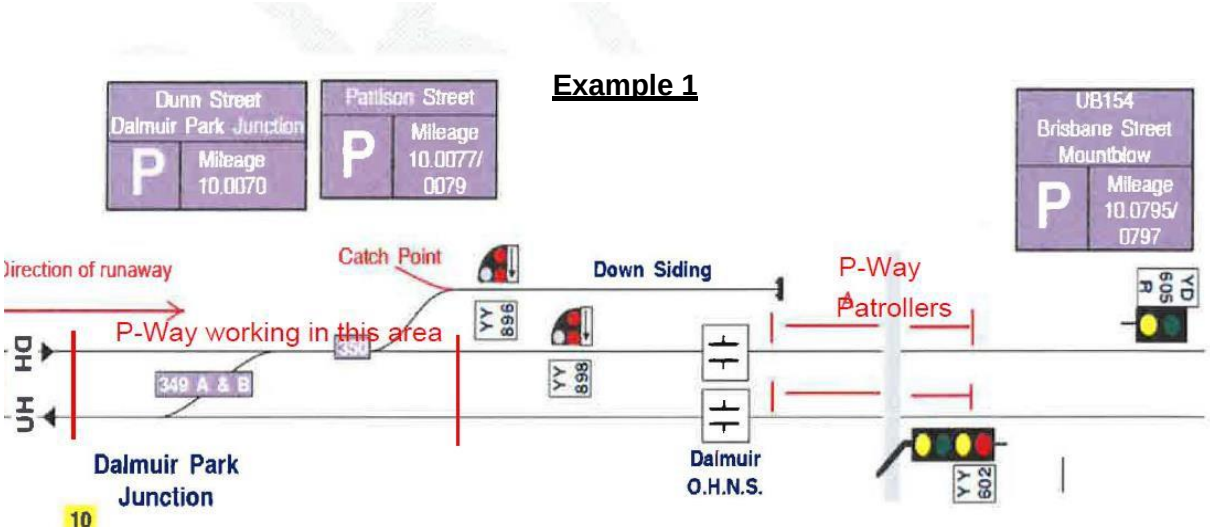
In example 1 below, setting the points 349 and 350 reverse would take any runaway into the Down Siding thus isolating any site below you from the runaway, you would need to ensure that there were no other works taking place in the Sidings, there were no Trains or OTM stabled in the Sidings and that you can maintain the points in this position for the duration of the work taking place downhill of you.

It may be good practice to take a Sidings Possession as part of your Possession ensuring you have control of who works in there and also allows for the required Points to be moved without affecting the " Flank Arrangements " and causing a possession irregularity.

If for any reason you are giving up the worksite in which the points lie earlier than you have arranged (or do not take the worksite) then the works downhill of you must be informed and advised to deploy secondary protection.

From the line diagrams the planner (with advice from the PIC, RM, PM) will identify points that could be set to take any potential runaway from your works into a sidings (where no works are taking place or where no trains are stabled), A goods loop can also be chosen if it is protected by catch/trap points with the same conditions as a sidings in that no works are taking place within the Loop.

Example 1

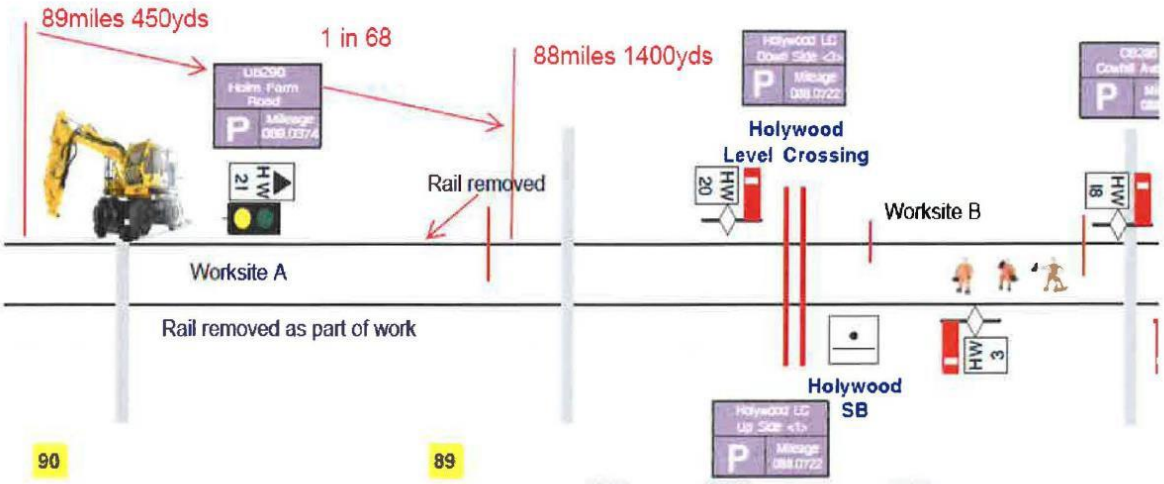


P-way Patrollers protected from any runaway by setting points 349 and 350 in the reverse position. The sidings would be taken as a Sidings Possession by the P-Way working in that location, that way they have control over who works within the sidings and can ensure the sidings remain clear.

Primary protection – Rail removal

This method can only be used if the rail is part of the works, as there is a risk of derailment if any rail removed is forgotten and not replaced. In Example 2, removing a rail between Worksite A and worksite B would not be acceptable.

Example 2



In the example above Worksite **B** would be protected from a runaway from worksite **A** (1 in 68 gradient) by the rail removed as part of the work, it would not be advisable to remove a rail out with the work as this would then create a derailment risk to Trains if forgotten about.

Informing others of risk of potential runaway risk

From the first section the planner will know whether they require a Possession for their work and whether their work is taking place on a gradient of steeper than 1 in 100. From the second section the planner will also have identified if they can protect any works downhill of their work.

To allow this information to be visible to other work deliverers arrangements must be made to have this information published in the WON, Supplement WON or Wires as part of the process for booking a Possession Worksite. This Possession booking process will vary dependent on the Network Rail department you work for or whether you are a contractor.

Irrespective of what process you use the details of risk and the protection method must be included in your application and should include – Mileage and Direction of potential runaway, i.e. downhill toward Bradford Jn, the name and contact details of the Planner, PIC, RM or PM (these contact details must be the person who would be most relevant to discuss the risk dependent on the timescales) and what method of protecting the works downhill will be used.

The last step in the planning process will be creating the SWP in SSOWPS or OnTrac, the details of what is required are contained within the section 7.

5. HIERARCHY OF CONTROLS IF EXPOSED TO RUNAWAY RISK

Identifying if work is at risk from runaway

The three criteria for identifying whether my works will be potentially at risk of runaway from another site of work are –

1) Are my works on a gradient steeper than 1 in 100 or is there a gradient within 5 miles of my works?
2) Are my works within a Possession or adjacent to a Possession?
3) Are my works taking place on or near the line?

If the answer to all three of these questions is yes, then the work is deemed to be potentially at risk from a runaway.

1) The documents I can refer to answer question a) are listed and explained in the section 4
2) The documents I can to refer to answer question b) are the WON, Supplement WON or Wires from the Route Planning Team or ODM Team (in some areas it may be that Control issue a Wire), it is therefore essential that not only the Planner is on the distribution list for these documents but also the PIC, RM/PM.
3) The nature and location of my works will determine whether my works are on or near the line and will answer question c), if unsure then the PIC/RM/PM will confirm

When creating SWPs for works of a cyclic nature then (time period dependent on protection/non protection being used) only the first in the sequence has to be verified and authorized, however there is still a requirement for ALL SWP's to undergo a acceptance check by the PIC before going on site:

This acceptance check will include "that site conditions are such that the planned risk and operational controls remain valid", this includes controls in place to mitigate from risk of runaway. It is therefore essential that all cyclic packs are checked against the latest WON/Supp WON & WIRES to ensure there is no risk of runaway prior to use.

If a risk of runaway is identified on a cyclic pack that has no runaway risk mitigation/controls, then this should be escalated to the Responsible Manager and no work started till any necessary amendments are made.

Protecting a site from Runaway

There are several methods of protection you can select to either isolate your work from runaway (Primary Method) or give a warning to staff of an approaching Runaway (Secondary Method). Other mitigations that may be considered are:

1) Is the nature of my work such that it would isolate me from any potential runaway? This would include but not restricted to;

- Working on a Signal Head or Signal Gantry
- Working on location cases where there would be a separation distance of a minimum of 4ft between staff and the nearest running line.
- De-veg works where a separation distance of a minimum of 4ft between staff and the nearest running line.
- Fence repairs/inspections where again a separation distance a minimum of 4ft between staff and the nearest running line.

If a minimum separation distance of 4ft from the nearest running line can be maintained for the duration of the works then this can be regarded as mitigation.

2) Is the gradient direction uphill of my work so as to bring any potential runaway in to my worksite?

Use gradient spreadsheet, 5-mile diagrams etc. to determine direction of gradient. If the Gradient direction would take any potential runaway away from my works then no risk

3) Even if all of the 3 criteria for determining risk are answered "yes" then a risk would only exist if Rail Mounted Plant is in use on the "at risk" gradient within the Possession.

Check WON's and Wire's to determine if the "at risk" gradient within the Possession has "at risk" plant in use, if it can be determined that no Rail Mounted Plant is being used on the "at risk" gradient, then no risk of runaway exists.

4) Are there works between my location and the runaway risk gradient that would act as a buffer between my works and a runaway. This would include Major Projects Track/S&C renewals where there may be Engineering Trains, lifted track etc. that would be between the gradient greater than 1 in 100 and my works, therefore stopping any runaway from reaching my work.

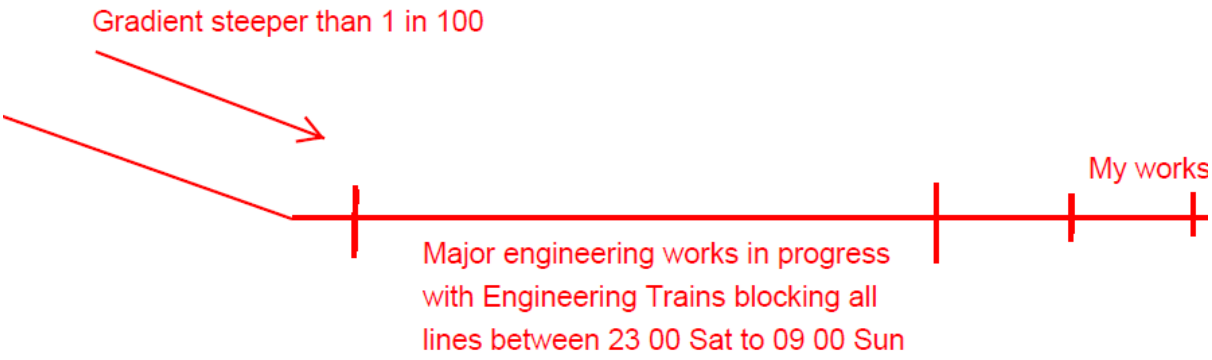
Check WON's and Wire's to determine if there are works of this type between my works and the "at risk" gradient. However, you must ensure prior to starting works that

a) The work is going ahead

b) The times that the line(s) will be blocked

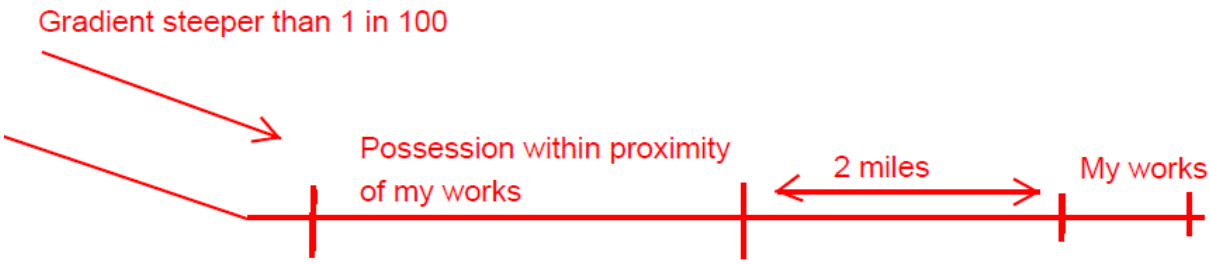
Arrangements made for any change in a) and b) to be communicated to you.

Example 3



In example 1 the first line of the criteria states that *"The site of work is on a gradient steeper than 1 in 100 or has a gradient steeper than 1in 100 within 5 miles of your site of work"* this however is only a risk if the gradient within 5 miles of your work lies within a Possession.

Example 4



In example 2 the answer to the first of the criteria would be “yes” however as you can see there would only be a risk if the gradient steeper than 1 in 100 was contained within the Possession.

Check WON’s and Wire’s to determine if the gradient lies within a Possession. If the gradient does not, then there is no risk from runaways

The last step in the planning process will be creating the SWP in SSOWPS or On Trac, the details of what is required are contained within the section 7

Secondary protection - (Warning)

In both scenarios’ i.e. importing risk of runaway and at risk of runaway Primary Protection must be considered**.**

The two methods of warning are deploying an approved system (e.g. Vortok Rearguard) or deploying a watchman, these should be considered as methods of protection only when there are **no** suitable Primary Method available. Warning systems should be regarded as a last resort and not a first choice.

When completing the Runaway Risk section, it is essential that the reason for not selecting a primary protection method is detailed.

There should also be additional consideration given to the “ position of safety” when using warning as a method, runaway plant can hit a site of work at any stage of the works, therefore there may be risk of injury to staff (even clear of the line) from a derailing trailer/trolley, its load or an item the runaway has collided with i.e. hitting a thermic weld pot during the weld, staff may be clear of the vehicle but still at risk from molten metal being sprayed due to the collision.

Approved Warning Systems

Staff must be trained and competent to deploy warning systems. When identifying where it is deployed it is vital that any sectional appendix information for the location is ignored regarding the direction of travel as the risk can be on any line leading into the site, as the movement is uncontrolled it will not be restricted to the conventional “ Up or Down” directions that Trains conform to.

“Note” If it takes longer to set up the secondary warning system than to complete the actual works then another method of protection should be considered.

Watchman Criteria

- Must have lookout competence.
- Will be appointed by the PIC or COSS (if delegated COSS duties) and identified to the group.
- Must be placed and remain in a position of safety.
- Must be identified as a method of warning during the planning stage and details added to the SSOWPS controls measures box.
- Watchman are not allowed during darkness, poor visibility or in a Tunnel.
- Must have sighting distance of 500yds/460m minimum.
- Must not be involved in the work.
- Watchman must be close enough to the group to confirm all staff receive warnings.
- Watchman must always have sight of all staff to be warned.
- Where noise is involved the COSS or PIC must use the touch warning system (If necessary, must also shout)
- Must also have a whistle or horn (no flags or detonators).
- When briefed by the COSS/PIC the sectional appendix cannot be referenced as a runaway can approach the site from any direction and will not follow direction of travel (i.e. Up/Down) or line speed.
- If for any reason the Watchman cannot maintain the agreed sighting distance/visibility or needs to stand down he must warn staff to proceed to a position of safety and inform the COSS/PIC.
- Watchman are site Watchmen only (no distant or Intermediate) and there can be more than one deployed per site of work as runaway risk can be from more than one direction.

*Note: Whilst acting as a Watchman you must***:**

1. *make sure your mobile phone is switched off*
2. *stay alert and vigilant watching for approaching runaways.*

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Individual working alone (IWA)

If working IWA you can work under the protection of another group regards runaway risk however you must ensure you know who will be acting as Watchman , contact anyone providing Primary Protection and let them know your phone number and arrange a call if for whatever reason the primary mitigation is removed, ensure you know the physical limits of where you would be outside of the 10 seconds warning time for any secondary protection (Watchman, Vortok).

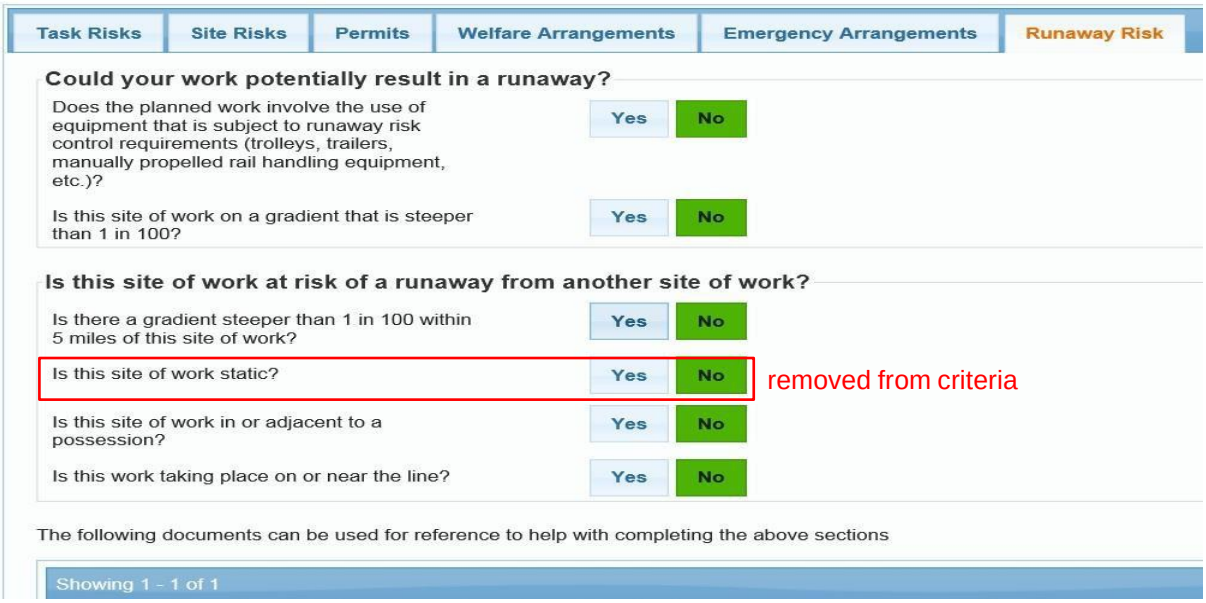
- Anyone working as an IWA must ensure they can look up often enough to see any approaching runaway.
- They must be able to look in both directions if they are unsure of the direction that any approaching runaway can come from, but only in the direction of the runaway if they are certain the risk can only come from one side.
- They must ignore the Sectional Appendix regards Line Speed and Direction of Traffic as runaway risk is uncontrolled and can come from any direction irrespective of Up or Down Lines.
- They should be aware that most runaway vehicles will be smaller than a Train so when assessing whether they can look up often enough to spot a trolley or other manually propelled equipment etc. they must take this into account.
- They cannot use this method during the hours of darkness, poor visibility or in a Tunnel.
- Must be identified as a method of warning during the planning stage.
- Any restrictions on IWA working contained in the Hazard Directory must be followed.

6. SAFE SYSTEM OF WORK PLANNING SYSTEM (SSOWPS)

Runaway risk section in SSOWPS

When after reviewing the location of your work and determining whether there is a risk to your work, or you are importing risk to others then in the runaway risk section of SSOWPS there are two sets of questions that require an answer (see example 6). The first section relates to you **importing risk** and the second section refers to being “At Risk”.

Example 6.



Importing Risk

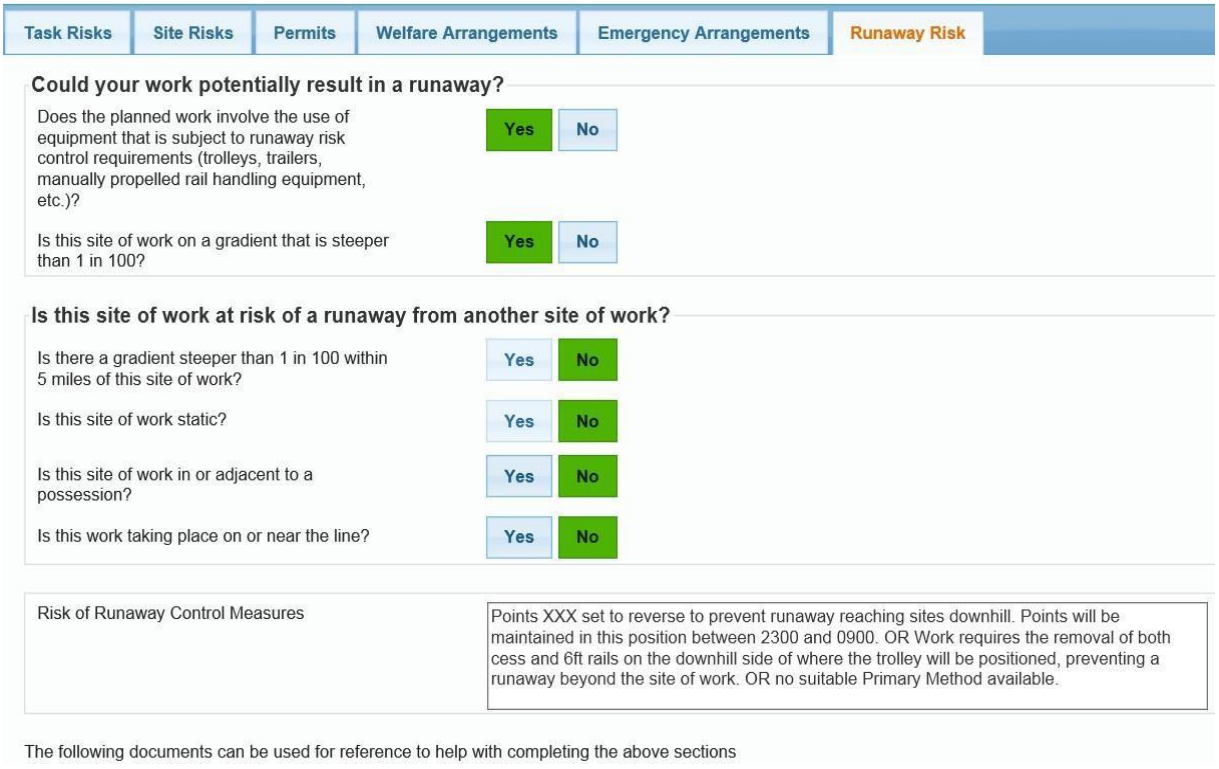
In the first section when both questions are answered with Yes then you are deemed to be importing a risk to others, therefore mitigation to isolate others at risk from the potential runaway must be considered. When both questions are answered yes, a Risk of Runaway Controls Measures Free Text Box opens (see example 7).

All control measure details must be noted in this Risk of Runaway Controls Measures box as this information will display on the completed SSOWPS Plan and will serve as a reminder/instruction to the PIC as to what has been planned/agreed

If there are no suitable control methods available to you i.e. moving points, rail removed as part of the work or re-planning your work then this information must be added to the Risk of Runaway Control Measures Box.

It is essential that the SSOWPS details that isolating the risk has been considered and not just missed by the planner.

Example 7.



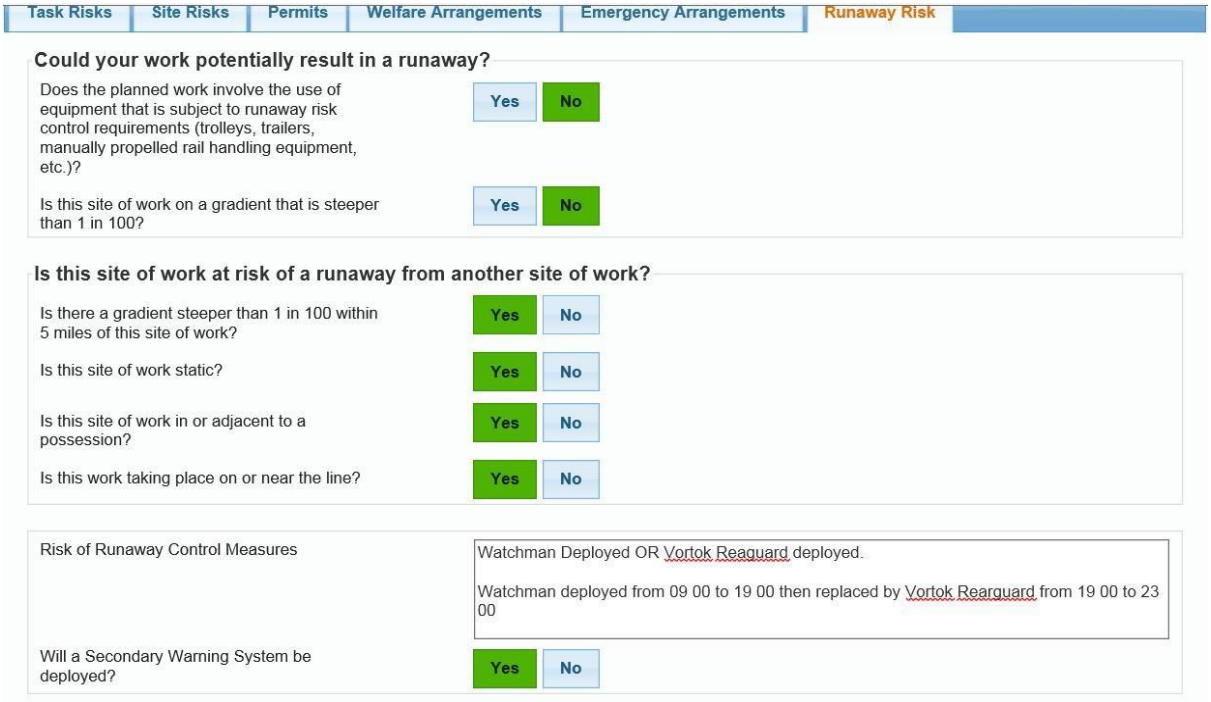
At Risk

The second section refers to your work being At Risk and contains 3 questions, when all three are “Yes” then again, a Risk of Runaway Controls Measures box opens (Example 8). Again, it is essential that any details of the control measures are added to this box, this can be Watchman deployed, Vortok deployed or a combination of both.

The work may take place over a period of time that involves working during daylight and darkness, it may be planned that a Watchman is deployed for the daylight period reverting to Vortok for the hours of darkness.

It is essential that both sets of questions are answered as you can be importing risk whilst at the same time be at risk from other sites of work that are uphill of your work

Example 8.



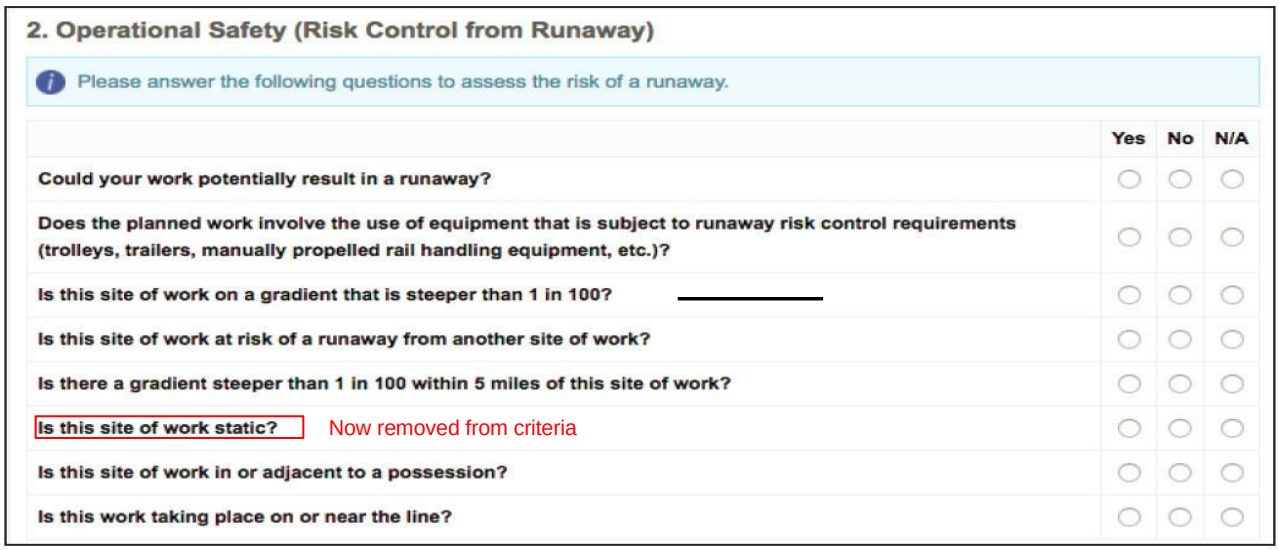
***** *In all circumstances the Control Measures box must contain any details of Runaway Risk Mitigation* *****

OnTrac system

screen shot below (Example 9**)** is from the OnTrac System used by NetworkRail Contractors and the although the criteria is displayed slightly different and there are two more questions the same requirement as those stated in the SSOWPS Runaway Risk Guidance applies.

Any mitigation agreed or considered but not implemented must be recorded.

Example 9.



7. PLANNING PROCESS FOR WON

WON (Weekly Operating Notice)

The WON is the Network Rail document that contains details of Possessions for a specific week or period, this document gives Routes blocked, Possession Limits and times. In addition, it can communicate Possession Train/OTM moves and arrival/departure information plus RRV's and work details.

Example 10.

FRIDAY 07 FEBRUARY

Ref. No. P2019/2718997 Possession Manager Infrastructure Maintenance Works Delivery (IMWD)

Item					
91	East Kilbride and Busby Jn	All Lines Possession	0020 FRI to 0530 FRI	Vegetation Clearance 7m1200yds and 0m1000yds W2019/6689773[Cost][AP] S&T Work 7m1320yds and 0m400yds W2019/6691545[X]

PROTECTION LIMITS
Down/Single East Kilbride: Buffers to Approach 691 pts#
Up East Kilbride: Beyond 688 pts#

GENERAL REMARKS
LINE CLEAR VERIFICATION PROCESS APPLIES AS PER NETWORK RAIL STANDARD: Ref NR/L3/OCS/084.

RRV/s IN USE WITHIN THIS POSSESSION

RUNAWAY RISK WITHIN THIS POSSESSION

POSSESSION ADDITIONAL INFORMATION

Highlighting the risk of runaway for the WON

The objective of this information regards runaway risk being added to WON Possessions and Worksite Additional Information is to provide visibility of where exists a potential for a runaway.

- By publishing in the WON documents, it allows for conversation to take place between those importing risk and those who may be at risk.
- These conversations allow agreements to be reached regards mitigation of risk (if feasible), risk assessments to be carried out and decisions made on re-planning works if no suitable mitigation implemented.
- The conversations should take place after the WON and Draft Agendas are published at each stage of the Access Planning Process allowing changes/amendments to be confirmed at the Route Access Planning Meetings. This may be the cancellation of a worksite, amendments to the worksite additional information details or sharing protection.
- The process flow chart emphasizes these essential requirements.

The planner with advice from the PIC/RM will identify if there are OTP, Trolleys or Trailers in use.

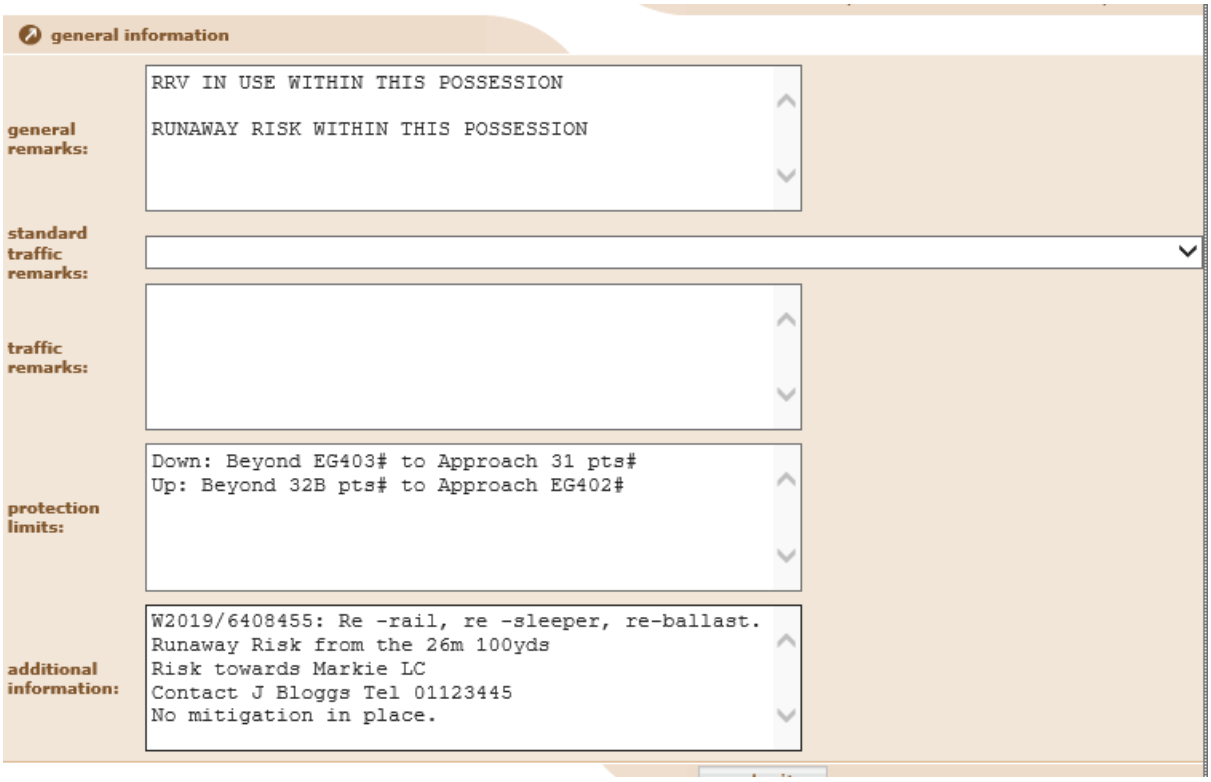
Using guidance documents such as the Hazard Directory, Gradients Charts, 5 Mile Diagrams, some Signal Diagrams or Local Knowledge, the Planner will determine whether the Rail Mounted Plant in use will be working on a gradient of 1 in 100 or greater (steeper).

If the answer to the above is Yes, then the planner must make provision for details of the risk to be added to the Worksite Additional Information Field (Example 11.) that their work will take place in. This can be directly into PPS or through a worksite request form and must be as per the standard format.

Standard Format Should Include -

1. Location/mileage of the work and gradient.
2. Direction of any potential runaway (this could be either a mileage or a recognized location i.e. towards Abbotsford Junction)
3. The contact name and telephone number to allow conversation to take place regards
4. but dependent on timescales it may be more appropriate to give the PIC or RM as the contact)
5. Any mitigation in place i.e. Points being maintained in a position to divert runaway away from works downhill of you, should also include times that this protection will be in use for i.e. 09 00 to 23 00 etc.

Example 11.



The details of the runaway risk are added to the WON application by those importing the risk, it is their responsibility to ensure that the details of any potential runaway is visible to all who may be working or intending to work on the ELR/Route covered by the Possession.

The details can be added to the Worksite Request Form (or any document used to communicate PPS requirements to the PPS inputter) or entered directly into PPS by those who use PPS directly for access.

If a potential runaway exists then the Possession Contains a Runaway Risk comment should be added to the Worksite General Remarks field, when the Route Planner/ODM creates the Possession this remark will copy across to the Possession General Remarks.

Adding this comment to the general remarks field ensures the risk comment is published in all WON documentation up to and including the Final WON. See example 12 below.

Example 12.

SUNDAY 05 MAY

Ref. No. P2019/2529844 Possession Manager Network Operations East Midlands

Item						
66	Blackwell South Jn (LN3207) and Clay Cross North Jn	Down and Up Erewash Possession	0010 SUN	to	0615 SUN	Ground Investigation/Automatic Ballast Sampling 137m8ch and 138m5ch W2019/6346048
	Blackwell South Jn (LN3207) and Morton Jn	Up and Down Blackwell Slow Possession	0010 SUN	to	0615 SUN	Structures Examination 139m0ch and 140m15ch W2019/6104457 Structures Work 140m40ch and 140m63ch W2019/6342332

PROTECTION LIMITS

Down Erewash: Beyond TC4723 to Approach TC4753
Up Erewash: Beyond TC4754 to Approach TC4722

TRAFFIC REMARKS

NO BOOKED TRAFFIC.

GENERAL REMARKS

LCV PROCESS APPLIES WITHIN THIS POSSESSION.
RUNAWAY RISK WITHIN THIS POSSESSION

This prompts the Planner/PIC/ODM/RM to check the worksite for information on the potential runaway and the contact details to discuss possible mitigation.

Worksite Additional Information

When Planners have identified that their work will introduce a risk of runaway, they should make arrangement for the details of this potential risk to be added to the worksite additional information field.

The information details should be in the format of:

1. Location/mileage of the work and gradient.
2. Direction of any potential runaway (this could be either a mileage or a recognized location i.e. towards Abbotsford Junction)
3. The contact name and telephone number to allow conversation to take place regards the risk and any suitable mitigation (this does not have to be the planner, but dependent on timescales it may be more appropriate to give the PIC or RM as the contact)
4. Any mitigation in place i.e. Points being maintained in a position to divert runaway away from works downhill of you, should also include times that this protection will be in use for i.e. 09 00 to 23 00 etc.

Example 13.

Currently the information from this field is visible in the CPPP and the T-4 WON, any agenda documents sent out by Route Planning Teams prior to the T-5 Lockdown Meeting plus the Final WON. This is also the field that is contained in the ODM PICOP Packs.

When Route Planners/ODM's are creating Possessions then the worksite additional information is copied across to the Possession Additional Information Field.

When work deliverers are checking for risk of runway details to determine any potential risk to their works, the details will be contained with the Possession Additional Information Field (Example 14)

Example 14.

SATURDAY 21 to SUNDAY 22 MARCH

Ref. No. P2019/2745415 Possession Manager Route Business SC West

Item							
1	Beattock North and Beattock Summit	All Lines Possession	2300 SAT	to	0900 SUN	Preparatory Work 45m880yds and 48m880yds W2019/6641228[Cost][U] Network Rail High Output (NRHO)

PROTECTION LIMITS

Down Main: Beyond MC719 to Approach MC613
Up Main: Beyond MC618 to Approach MC718

GENERAL REMARKS

RRV IN USE WITHIN THIS POSSESSION

RUNAWAY RISK WITHIN THIS POSSESSION

POSSESSION ADDITIONAL INFORMATION

W2019/6641228 - High Output Track Renewals
Lineside Welding, RRV in use,Access Point: OB248 (46m 1361y). Runaway Risk from 48m 200yds towards Beattock North. Contact J Bloggs tel 017745633.
No mitigation in place.

Eng. Access Statement v1, Section 4
Possession Status : Work in Progress
Disruptive : passenger and freight

The Supplementary WON

This version of the WON displays **only** those items that have been added, cancelled or amended not all Possessions. This version of the WON is published on the Thursday prior to the WON week. i.e. Week 44 Supplement WON published Thursday Week 43.

Provision should be made to include the runaway risk details in the worksite, whether this is in the General Remarks for new Possessions or in the Supplement Information for existing WON Items. Again, it is vital that this information is visible to all.

Below are two examples of a Supplement WON and where the runaway risk details would be added to highlight to all working on that Route/ELR.

Below are some examples of the Supp WON (Examples 15 and 16)

Example 15.

FRIDAY 20 DECEMBER

P2019/2706612 Item 173 has been re-issued as shown below:

Item 173	Gartsherrie South Jn and Greenhill Lower Jn	All Lines Possession	0040 FRI	to 0500 FRI	Structures Examination 103m0yds and 104m440yds W2019/6617454 Structures Work 104m1100yds and 105m400yds W2019/6652054 Resignalling Work 96m0yds and 104m440yds W2019/6663613

PROTECTION LIMITS
Down: Beyond GMW905# to Approach 156 pts
Up: Beyond 154 pts to Approach GMW906#

GENERAL REMARKS
HEATHERBELL CCTV LOCATED WITHIN POSSESSION
PROTECTING SIGNALS AS FOLLOWS:-
DOWN: SIGNAL GMW905
UP: SIGNAL GMW906

GREENFOOT CCTV LOCATED WITHIN POSSESSION
PROTECTING SIGNALS AS FOLLOWS:-
DOWN: SIGNAL CN353
UP: SIGNAL CN354
DOWN GOODS LOOP: SIGNAL CN451

Runaway Risk Within This Possession

Supplement Remarks W2019/6663613 - Siemens RA - GI Works and signal surveys of the following Signal Structures.
CN353,CN451,CN356,CN358,CN362,CN363
ES: G MUNRO: 07432 129 256
Runaway risk from the 103m 440yds towards Greenhill, Contact Details J Bloggs Tel 012345678
No mitigation in place.

Example 16.

SATURDAY 23 NOVEMBER

P2019/2699694
ITEM 254

Add new blocked line:	Birkenhead Central	Carriage Sidings Sidings Possession	0055 SAT	0500 SAT
Add new blocked line:	Birkenhead Central	Down Sidings Sidings Possession	0055 SAT	0500 SAT
ADD Worksite	Safety & Environment Work 2m25ch and 2m35ch W2019/6673340			

Supplement Remarks MITIE TO TAKE POSSESSION OF THE SIDINGS AT BIRKENHEAD CENTRAL
W2019/6673340 - Runaway Risk Within This Possession, Potential Runaway toward Birkenhead Central. Contact J .Bloggs Tel 012234567. Points Y maintained normal from 0055 - 0500

Daily Wires

Issued after the publication of the Supplementary WON by Route Planning, Senior Operation Delivery Manager Team (SODM) or Route Control dependent on each individual Route's process, it is not important where this information is displayed as this may vary.

It is vital that the wording follows the standard format and is visible to all reviewing the Wire.

Below is an example of a wire issued by the Scotland SODM Team with the proposed wording format in red.

Please note the following additional Possessions: -

ITEM NO.	REMARKS
ODM 2	**Add IMDM Glasgow Line Blockage:** **SC031 GRETNA JN TO GLASGOW CENTRAL (VIA KILMARNOCK)** **FRIDAY 29 NOVEMBER** Ref. No. P2019/2715191 Possession Manager Scotland IMDM Glasgow Item Crossmyloof and Eglinton St Jn — All Lines Line Blockage + Disconnect — 0030 FRI to 0530 FRI — Track Maintenance 0m 300yd and 0m 700yd W2019/6683380[AP] **PROTECTION LIMITS** Down: Beyond GB5175 to Approach GG5189 Up: Beyond GB5188 to Approach GB5176 **GENERAL REMARKS** LINE CLEAR VERIFICATION PROCESS APPLIES, AS PER NETWORK RAIL LINE STANDARD Ref: NR/L3/OCS/084. Runaway Risk Within This Possession W2019/6683380 TSM South (SC031) Weld defect @ 673. Acccess/Egress: Darnley Street COSS:D TERVIT 07713 300503 Runaway risk from 39m 1300yds, potential Runaway risk towards Eglinton St Jn, Contact J Smith Glasgow P-Way Tel 09997773344 No mitigation in place.

Visibility of Risk

This is key to ensuring that we mitigate again potential runaway so irrespective of what Document (dependent on timescale) is being reviewed the detail of the risk and the prompt to notify planners, PIC's , Responsible Managers that the Possession contains a risk must be visible.

This means that Planners, PIC's and RM's and should be on all planning publication distribution lists, WON's, Supplement WON and Wires.

It may be personal emails or shared email boxes (whatever the preference), these emails are reviewed at the appropriate timescales by the most relevant person for that timescale i.e. a wire issued at 16 00 for that night when the planner finishes at 15 30 should be reviewed and actioned by the RM or PIC for the work, not ignored and assumed to be a planner's responsibility.

8. WON PLANNING PROCESSES

Timescales prior to the late change process

Between T-37 Weeks and the publication of the Draft WON at T-4 Weeks (For some routes this may be prior to the T-10 Days meeting) would be those timescales where the applications would make a Published WON with the exception of the Supplement WON, however again this will vary from Route to Route. What is critical is that the Runaway Risk information is visible for each affected Item and there is an opportunity to discuss and agree potential mitigation.

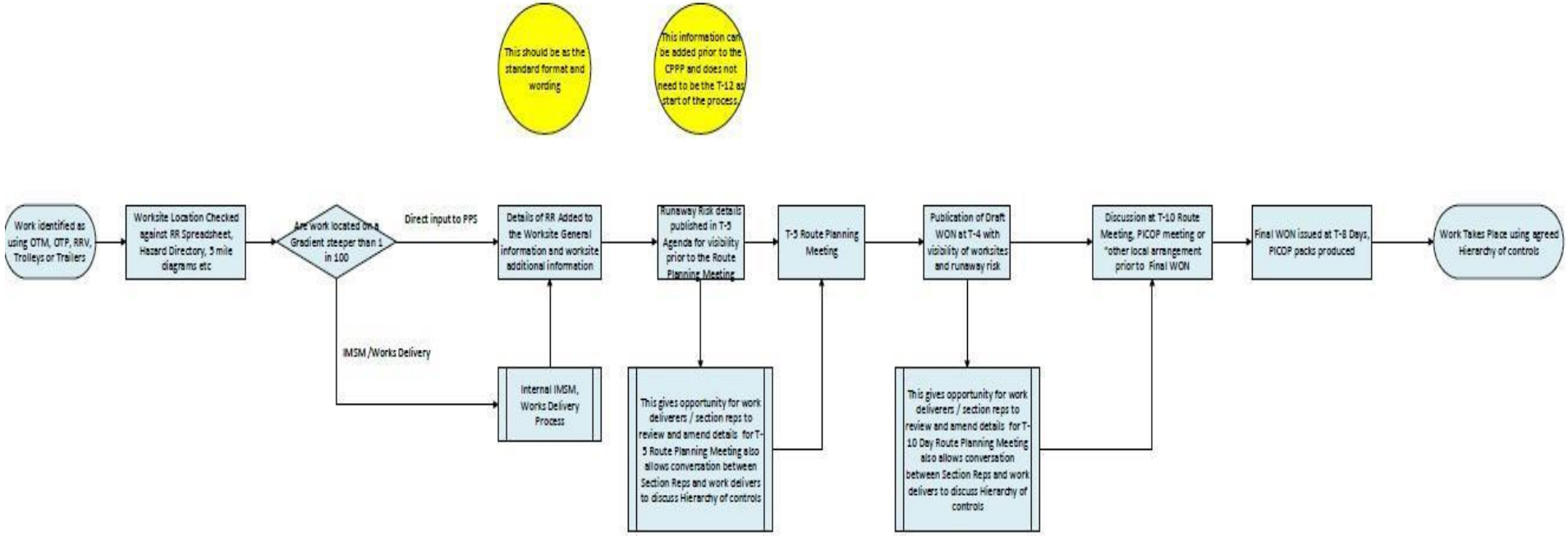
These discussions should ideally take place prior to the Route Planning Meetings and any amendments highlighted to the Possession Planners for inclusion in the next version of the published WON.

If the SWP is already distributed there is a risk associated with having several versions of a SWP issued so I would not reissue a SWP but leave it to the PIC/RM who agreed to the late addition of other works to instruct the impacted team that they were to go up the Runaway Risk Mitigation Hierarchy.

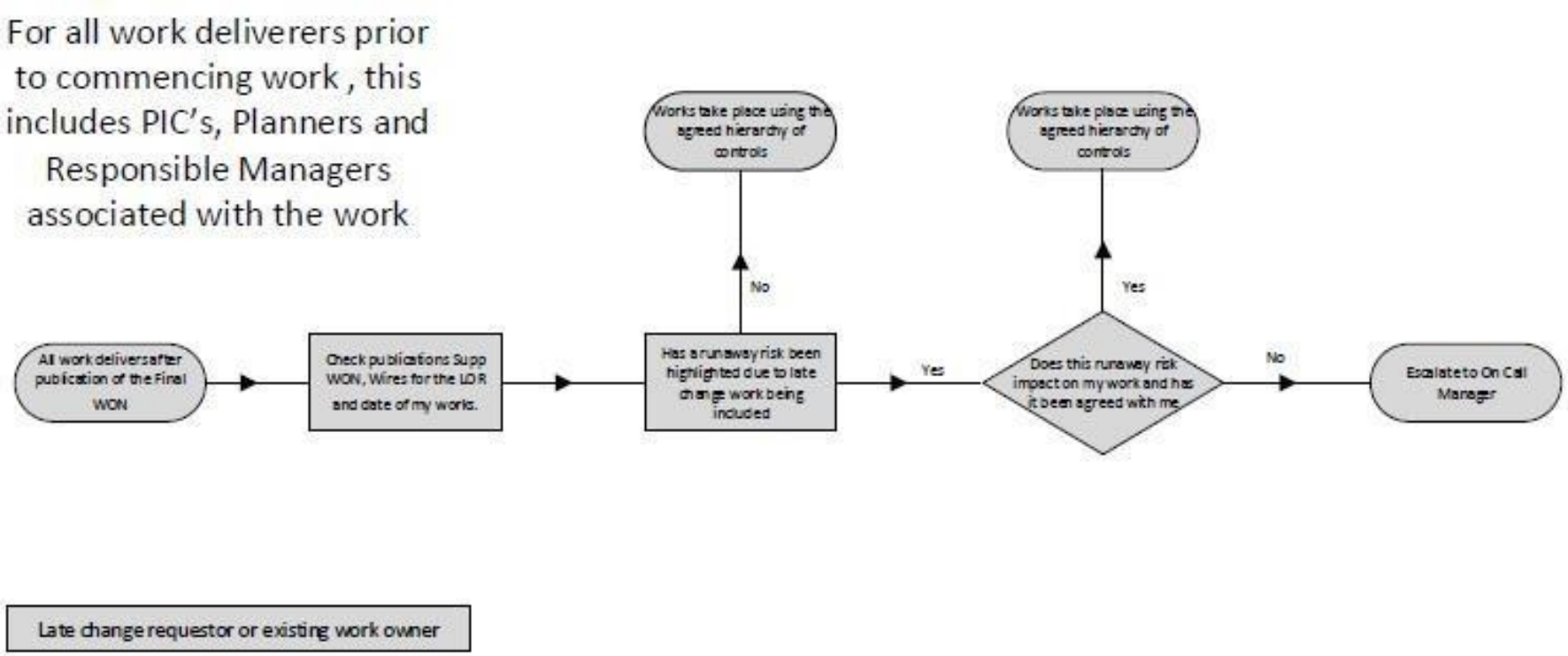
Remember the Planner is there to facilitate and advise on the creation of the SWP but not to make the decisions regards mitigations, that is the PIC/RM.

Flowchart A shows this process.
Flowchart B shows the Process for all work deliverers prior to commencing work"

Flowchart A.



Flowchart B.


For all work deliverers prior to commencing work , this includes PIC's, Planners and Responsible Managers associated with the work
All work delivers after publication of the Final WON
Check publications Supp WON, Wires for the LDR and date of my works.
Has a runaway risk been highlighted due to late change work being included
No
Works take place using the agreed hierarchy of controls
Yes
Does this runaway risk impact on my work and has it been agreed with me
Yes
Works take place using the agreed hierarchy of controls
No
Escalate to On Call Manager
Late change requestor or existing work owner

Late Change Planning Process

There may be differences dependent on Routes on how Late Change is defined, however the general view is that it would be any application after the Publication of the Final WON.

All Routes will have additional controls in place due to the potential increase in risk resulting from late change. Below is an example of a CRF (Change Request Form) used by Scotland Route, however it is not important what format is used or what its named.

What is vital is that the details of runaway risk should be included in the form (whatever format or title) along with the details of those potentially at risk from the new works being added, confirming that the potential risk has been discussed and mitigation agreed or identified.

Week No	PPS Worksite Ref(s):	PPS Possession Ref(s):	Issue	Won Item	PPS TSR Ref (s):

NB: IF THIS CHANGE INVOLVES A NEW/AMENDED/CANCELLED ISOLATION, A SEPARATE FORM MUST BE SUBMITTED TO IsolationsScotland@networkrail.co.uk , BY YOUR DESIGNATED ISOLATION PROVIDER

DOES THIS CHANGE INVOLVE ENGINEERING HAULAGE and/or OTM(S)? If YES, please provide the following information:			No
NROL3 ORDER REF(s):	NSC LCAR REF(s):	DISCUSSED WITH NSC? (inc. Contact Name & Date)	

DOES THIS CHANGE POTENTIALLY IMPACT UPON POSSESSION DELIVERY RESOURCES?* If YES, please provide the following information. . (e.g. new NetOps possession, upgrade existing Line Block to possession, addition of IP work to IM possession or vice versa, PICOP to SPICOP etc.)	No

DISCUSSED WITH ODM TEAM and/Or EXISTING POSSESSION MANAGER? (inc. Contact Name/s & Date)	AUXILIARY OP(s) REQUIRED? (please detail)

DOES THIS CHANGE POTENTIALLY IMPACT UPON EXISTING WORKSITE(s)* If YES, please provide the follwing information.... (*eg.mileage overlaps, shared access point, time reduction due to extended possession, ET/OTM/OTP: routed through existing sites/new site obstructing existing Ex/To etc)	No
AGREEMENT REACHED WITH ALL EXITING WORKSITE REQUESTORS IMPACTED BY CHANGE? (Inc. Contact Name/s & Date)	
(NB: IF CHANGE IMPACTS UPON WORKSITE MANAGEMENT, THIS *MUST* FORM PART OF ANY AGREEMENT, OTHERWISE REQUEST WILL BE RETURNED UNPROCESSED):	

IF THIS REQUEST RESULTS IN A RUNAWAY RISK OR WILL BE IMPACTED BY A RUNAWAY RISK HAS THIS PROPOSED CHANGE BEEN DISCUSSED/AGREED WITH THE AFFECTED PARTIES? (inc. Contact Name/s & Date)

Plus details of mileage, runaway direction and contact name of PIC/SWL/Planner

DETAILS OF CHANGE - THIS *MUST* INCLUDE A BRIEF DESCRIPTION, FULL JUSTIFICATION (inc FAULT REF etc) IMPLICATIONS IF REQUEST DECLINED AND NAME/MOBILE OF RELEVANT RESOURCE IF POST WON PUBLICATION eg. PICOP/ES/COSS)	REASON CODE AND REQUESTER
	VEGETATION RESPONSE
	HIGH OUTPUT

SUBMITTED BY (name/date)	AUTHORISED BY (name/date)	CLOSE CALL Ref (where applicable):

For NETWORK OPS ACCESS PLANNING TEAM (NOAPT) USE ONLY:-	
SUBMITTED BY (name/date)	FURTHER COMMENTS (inc. DECLINED reason, where applicable):

Late change via control

As this type of access comes via Control and can therefore be at timescales outside of the Route Planning/ODM Wire timescales it may not be feasible to check whether your work is importing a risk to other sites of work, however every endeavor should be made to confirm whether there is a risk and if a source of primary runaway risk mitigation is available..

For work where the work deliverer cannot confirm that they are not importing a risk then control must be informed, Control will then contact those works who could potentially be at risk and request that they mitigate against risk of runaway by referring to the hierarchy of controls, if there is no mitigation available then a senior NWR Manager must be contacted to make a decision on which works go ahead.

Note: For a work deliverer to arrive on a Thursday night requesting access, with a fault number issued on Tuesday, would be an unacceptable practice as there was sufficient time for the work location to be checked for importing risk of runaway and for a wire to be issued.

Self-assurance and record retention

A copy of all late change documentation submitted to the Route Planning Team, ODM Team or Control requesting access that has a potential of importing runaway risk due to the nature of the work, must be retained for a minimum of 3 years and will be part of the responsible manager's self-assurance checks.

The paperwork should be attached or saved (if an electronic SWP) with the corresponding SWP paperwork and should be available for audit.

9. OTP WORKING ON GRADIENTS

Road Rail Vehicles

Where OTP is to be used on gradients, they should be used within their safe working limits, these limitations will be stated on the Engineering Acceptance Certificate (EAC) /Engineering Conformance Certificate (ECC)

If you are using OTP on a gradient, they should be selected for use in the following order of preference:

a) Type 9a, self-powered rail wheels (hydrostatic or direct drive), or Type 9b, high ride systems upgraded with direct acting rail wheel brakes as shown in Figure 1.
b) Type 9b, high-ride standard systems as shown in Figure 2. fitted with direct rail braking;
c) Type 9c, low-ride or Type 9b high ride with knurled drive hub extensions as shown in Figure 3.

Trailers

If you are using a rail trailer or attachment it must be fitted with service and parking brakes as required in NR/L2/RMVP/0200 /module P509. A functional parking brake test shall be carried out:

a) immediately after placing a trailer or attachment on the track and before releasing the trailer; and
b) after coupling or uncoupling a trailer or attachment in accordance with clause 3.3 of this module.

*This test is fundamental to the safe use of these trailers and attachments, d*o not use any trailer or attachment on track if the braking system is defective.

Note: The reference to attachments in this instance means attachments with more than two rail wheels.

Trailers or attachments that develop defective brakes in service should be removed from the track as soon as practicable. Do not disconnect them from the host machine until they are to be removed (*It might be necessary to unload them first.*

If the trailer or attachment cannot be removed from the track in one operation, then lift one end from the track to prevent a runaway.

If the towing vehicle is incapable of lifting the trailer, the consist shall remain coupled to the host vehicle until a lifting machine can be used to remove the trailer. At all times the trailer shall be secured to prevent runaway.

Figure 1: Type 9A RRV

Figure 2: Type 9B RRV

Figure 3: Type 9C RRV