



On-Track Plant Operations Scheme (POS) POS Representative – Key Point Guide

Scope

The purpose of the On-Track Plant Operations Scheme (POS) is to define the compulsory requirements and minimum means of compliance for an organisation undertaking the provision and operation of On-Track Plant (OTP). The scope of the POS extends to all organisations carrying out OTP operations on Network Rail Managed Infrastructure (NRMI) and Network Rail projects.

The Scheme applies to all OTP as defined in Network Rail Standard NR/L2/RMVP/0200 – Infrastructure Plant Manual (IPM). OTP must meet the requirements of Rail Industry Standard RIS-1530-PLT *Rail industry standard for engineering acceptance of on-track plant and associated equipment*. OTP includes Rail Mounted Maintenance Machines (RMMM), Road-Rail Vehicles (RRV), trailers and attachments.

Plant operations using non-OTP are not in the scope of the POS unless working on or near the line, i.e. within 3 metres, on a POS controlled site. The IPM covers the details regarding non-OTP, however, it is a pre-requisite that a POS provider has adequate arrangements in place for the provision and use of non-rail mounted plant, similar to the arrangements they apply to OTP.

Examples of types of On-Track Plant



Rail Mounted Maintenance Machine (RMMM)



Mobile Elevated Work Platform (MEWP)



Highway Permissible Vehicle (HPV)



Materials Handler (MH)



Crawler Tractor (Dozer)

Please note this list is not exhaustive, there are many other types of plant and machinery where the POS will apply. If you are unsure please submit your enquiry to the POS Review Panel at:

POS@networkrail.co.uk

Background

Effective site control is a major factor in achieving site safety compliance.

As part of the POS requirements there must be a competent representative on site whenever OTP operations are taking place. This role is known as the POS Representative, who must be an employee of the POS provider and be competent in delivering the POS providers arrangements for safe plant operations.

This presentation highlights specific areas of planning, plant usage, key responsibilities and general plant awareness to assist and support the POS Representative in contributing to safe plant operations.



Key Principles *(ALSO a requirement of the PDSW Programme)*

- *Effective local planning – ‘those who do the work are involved in planning the work’*
- *One single accountable mind for OTP operations*
- *Process developed by those who use it*
- *Live risk management of OTP risks at the point of work*
- *Independent monitoring and checking of controls at the point of work*
- *Same process for NR and contractor communities*



When Things go wrong

When plant operations are not effectively planned or controlled serious accidents/incidents can occur.



In the 6 months between January and June 2014 there were 134 accidents/incidents involving OTP reported in the national control log!!



This construction site 360° crawler excavator illustrates just how easily this can happen and this is before we think about putting rail wheels on it!!!

Incorrect and dangerous cross tracking due to poor planning of the work.



The Lifesaving Rules

<http://safety.networkrail.co.uk/Information-Centre/Lifesaving-Rules>

Safe behaviour is a requirement of working for Network Rail.

These Rules are in place to keep us safe and must never be broken.

We will all personally intervene if we feel a situation or behaviour might be unsafe.

Working responsibly



Always be sure the required plans and permits are in place, before you start a job or go on or near the line.



Always use equipment that is fit for its intended purpose.



Never undertake any job unless you have been trained and assessed as competent.



Never work or drive while under the influence of drugs or alcohol.

Driving



Never use a hand-held or hands-free phone, or programme any other mobile device, while driving.



Always obey the speed limit and wear a seat belt.

Working with electricity



Always test before applying earths or straps.



Never assume equipment is isolated – always test before touch.

Working at height



Always use a safety harness when working at height, unless other protection is in place.

Working with moving equipment



Never enter the agreed exclusion zone, unless directed to by the person in charge.

We will always comply with our Lifesaving Rules

For more information about our Lifesaving Rules go to safety.networkrail.co.uk/LSR

July 2014

everyone
home safe
every day

POL Vs POS

Rail Plant Operating in Possessions Licence (POL)

- The site management and control of OTP in possessions is only permitted by a corporate operator holding a Rail Plant Operating Company in Possessions Licence (POL)
- POL applies to Network Rail and it's contractors
- Must have an adequate management system
- Have a suitable Competence Management System
- Have adequate processes in place
- The Plant Operator Licence holder shall demonstrate their understanding of the roles and responsibilities of the Principal Contractor in relation to the Plant Operator Licence holder.
- The Plant Operator Licence holder is required to have in place: Representation on site, by an individual competent in On Track Plant operations. This individual will be the single point of contact on site in respect of communications with the Principal Contractor
- The Plant Operator Licence Holder shall have in place: a) a representative acting as the single point of contact during the course of the On Track Plant activities b) accident / incident reporting arrangements that are consistent with the Principal Contractors arrangements c) emergency planning / contingency planning arrangements that are consistent with the Principal Contractors arrangements
- Have adequate insurance cover

NR/L3/INI/CP0073 (Withdrawn 2014) – Supplier Licensing Requirements

On-Track Plant Operations Scheme (POS)

- The site management and control of OTP is only permitted by an approved On-Track Plant Operations Scheme provider (POS)
- POS applies to Network Rail and it's contractors
- Must have an adequate management system
- Have a suitable Competence Management System
- Have adequate processes in place
- The POS provider shall demonstrate their understanding of the roles and responsibilities of the Principal Contractor in relation to the POS.
- The POS provider is required to have in place representation on site, by an individual(s) competent in OTP operations.
- **POS representatives must be employees of the POS provider and must not carry out any other concurrent safety critical duties on site.**
- **The POS provider must be an owner of operational OTP**
- The POS provider must have in place accident / incident reporting arrangements and emergency planning / contingency planning arrangements that are consistent with the Principal Contractors arrangements
- Have adequate insurance cover

NR/L2/RMVP/0200/Module P521 - Infrastructure Plant Manual

The On-Track Plant Operations Scheme (POS)



The Ten POS Rules (Module P521)

OTP operations on NRMI and Network Rail projects shall be carried out by an approved POS provider. POS providers are approved by the POS review panel, to gain approval a POS provider shall demonstrate to the POS review panel that they have:

- 1. a fully documented management system and framework for the safe delivery of OTP operations;*
- 2. a competence management system for assuring the competence and fitness of their employees and contracted staff involved in the operation, maintenance and supervision of OTP operations in accordance with the Sentinel scheme rules;*
- 3. adequate processes to enable effective communication and co-ordination within all worksites;*
- 4. an adequate number of POS representatives present on each site to act as the point of contact. POS representative shall be employees of the POS provider and not be engaged in any other concurrent safety critical duties on site;*
- 5. arrangements in place for the proactive and reactive monitoring of their own performance and that of their suppliers;*
- 6. arrangements in place to respond to emergencies while undertaking OTP operations;*
- 7. title of ownership of operational OTP and have adequate and fully documented processes in place for the approval, acceptance, operation and maintenance of their OTP;*
- 8. adequate arrangements in place for the selection and use of suitable suppliers, including safety critical goods, products or services. Suppliers used to provide OTP shall be Network Rail approved through the Railway Industry Supplier Qualification Scheme (RISQS).;*
- 9. adequate arrangements for the operational control, preparation, development, communication and implementation of the safe system of work for OTP operations;*
- 10. identified and maintained information relating to the scope of the OTP operations they undertake.*

POS Representative – **Key Points**

1. Planning
2. Site Communication
3. On / Off / Cross Tracking Arrangements
4. Machine Controller Interface
5. Crane Controller Interface
6. Riding on Vehicles
7. Site Conditions
8. Working next to Any Lines Open (ALO)
9. Person – Plant Interface (exclusion zones)
10. OTP Attachments/Lifting Equipment
11. OTP Emergency Arrangements
12. If Things go Wrong



1. POS Representative - Planning *Key Points*

All work shall be planned to identify hazards, assess risks, and prepare a safe system of work for OTP operations.

POS Representatives **MUST:**

- Be involved in, and assist with the planning of OTP operations and the documenting of these in the OTP Plan.
- Have access to appropriate and competent resources in relation to OTP operations including lift planning and any line open (ALO) working.
- Assess information on risks that are provided by the PC, Network Rail and from the POS provider's own site walk out, and that the necessary information is provided for incorporation into the OTP Plan.
- Make sure that essential communication and liaison between all those involved in the work takes place as planned.



1. POS Representative - Planning **Key Points**

POS Representatives must consider the following when planning work with OTP:

- *Description of work to be undertaken and the use that will be made of the plant.*
- *Safe system for operations affecting any any line open (ALO), overhead line equipment (OLE) or third and fourth rail areas including third party owned OLE.*
- *Limitations and obstructions to space and clearance such as gauge restrictions, bridges, platforms, buried cables and troughing etc.*
- *Identification and suitability of road-rail access points (RRAP) for on/off/cross tracking of OTP.*
- *The transportation of OTP to/from the site access point*
- *Worksite details and the movements involved, including to/from the worksite.*
- *Details of where different modes of operation are to be undertaken.*
- *Site briefing arrangements and responsibilities*
- *Emergency information and emergency plan, including contacts and recovery arrangements.*
- *Storage/stabling locations including security requirements on site.*
- *Communications including Duplex communications equipment.*
- *Cooperate and coordinate with the PC on traffic management planning, to include required exclusion zones and safe movement of personnel and OTP from the delivery point and throughout the site.*
- *Contingency planning arrangements in place for preventing the operation of defective OTP performing a safety critical function.*

2. POS Representative - Site Communication **Key Points**

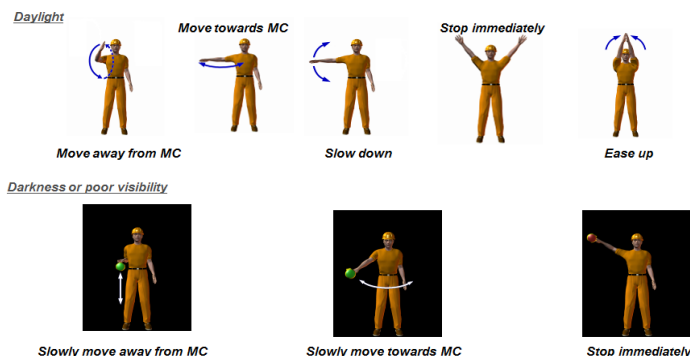
In the many of the accidents and incidents investigated poor communications was identified as a contributory cause. It is therefore essential that effective communication is implemented to support safe OTP operations. The OTP briefing should detail the preferred method of communication for controlling OTP on site.

Before work you must:

- confirm site communication for the control of OTP is stated in the OTP briefing.
- confirm that Duplex communication systems are available and ready for use.
- establish that staff that are using Duplex communication systems on site have been instructed in their use.

During work you must:

- observe whether the MC/CC during OTP operations has established the correct communication method.
- observe if the MC/CC (while communicating with the operator) is standing in a safe position.
- observe if the MC/CC (if using hand signals) is displaying the correct hand signals.
- speak to the MC/CC/machine operator to establish that the communication method adopted on site is working effectively.



3. POS Representative - OTP Access **Key Points**

On/off/cross tracking of OTP should be carried out using approved Road Rail Access Points (RRAPs). This activity should be pre-planned and identified within the site documentation. The RRAP locations and details should be included within the OTP Plan and OTP briefing documents (e.g. 'Work Package Plan' and 'Task Brief')

Before work you must:

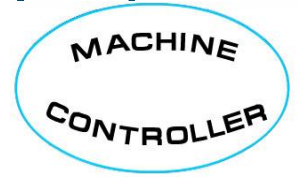
- confirm that the MC/CC has checked the Engineering Acceptance Certificate (EAC) for limitations of use prior to on/off tracking or operating the OTP.
- advise the ES/PIC/SWL before they give authority to an MC/CC to on-track the machine, to confirm that the RRAP location is as stated in the OTP Plan and is suitable for the machine.
- confirm whether cross tracking has been identified in the site documentation, and if so speak with the ES/PIC/SWL to establish what has been provided to ensure it is carried out correctly.
- identify whether suitable lighting has been provided at the RRAP.

During work you must:

- check the level of lighting at the RRAP is adequate (during hours of darkness).
- establish that the RRAP being used is adequate and in usable condition .
- ensure that any cross tracking is carried out using approved systems/methods
- advise the ES/PIC/SWL and MC/CC on machine access arrangements or concerns.
- inspect the track at the RRAP before handing back the track.

4. POS Representative - Machine Controller interface (MC)

Key Points



A POS Representative is responsible for implementing controls to maintain site safety during OTP operations. The OTP Brief provided to the MC should detail the type of OTP and the specific work which is to be undertaken.

Before work you must:

- confirm prior to starting work that the OTP is as stated in the OTP Brief
- identify if a MC is to control more than one OTP (if they are it should be documented the brief)
- remind site staff during your brief to obey any instructions given to them by the MC relating to OTP operations.
- establish the MC has completed the MC/CC checklist.



Is the MC aware of any O/H restrictions on site?

During work you must:

- observe the MC during OTP operations (especially people - plant interface).
- observe if the MC has set up effective communication with the operator.
- speak to the MC and establish all machine checks/documentation have been carried out and are correct.
- establish when the MC is to move the OTP over points/level crossing ask him to describe the arrangements he would follow.
- ask the MC does he have any concerns about OTP operations on this site.



Level Crossing

5. POS Representative - Crane Controller Interface

Key Points

It is essential that an accurate lift plan has been produced for all lifting activities. The CC must fully understand the information contained in the plan prior to starting any lifting operations. Any changes to the lift plan must be recorded.



Prior to starting work to:

- establish that the CC is in receipt of the lift plan and understands the specific lifting operations which are to be carried out on site.
- remind the CC not to undertake any lifting activities that are not included in the lift plan, until the lift plan has been amended for that activity and it is safe to undertake.
- remind the CC that the RCI must remain switched on during lifting operations.
- establish the CC has completed the MC/CC checklist.

During the works:

- observe during lifting that CC and other site personnel are in a position of safety.
- observe if the effective communication has been set up between CC and operator.
- observe during lifting that the RCI is switched on – if not on then lifting operation must be stopped immediately.

6. POS Representative - Specific OTP Rules **Key Points**

Riding on OTP or Vehicles

You must not ride, or let anyone else ride, on the OTP or any vehicle attached to it unless there is purpose-made seating or a riding platform and its use is authorised in the Engineering Acceptance Certificate (EAC). Situations have occurred in the past when MC/CC have travelled on machines where no seat was available. This had occurred when the machine had to travel more than a short distance to the place of work.

When on site:

- Check whether the EAC permits persons to travel on the machine. A copy of the EAC must be carried on the machine as part of the machine documentation.
- Remind MC/CC/MO during site conversations of the importance of this rule.
- Observe during OTP movements (especially where the OTP is travelling more than a short distance) that this rule is being followed.



Example of a machine with an additional seat for the MC

7. POS Representative – Site Conditions **Key Points**

Many accidents have occurred during OTP operations when poor rail head conditions have been present. Where these conditions have been identified it is important to take precautions to avoid any accidents, collisions or SPADs. These conditions can be made worse if on a steep gradient – extra braking distance will be required. Speed is another factor which must be taken into account – OTP should only travel at the speed which is suitable for the site conditions/operations and at a speed which allows the OTP to stop immediately when required.

Before work you must:

- Remind staff involved in OTP operations the importance of increasing the overall braking distance of the machine if poor rail head conditions are present.
- Remind the operator (s) where there is a possibility of poor rail head conditions to lightly apply the brake shortly after setting off and regularly during the journey to check adequate rail adhesion.
- Remind staff involved in OTP operations of any steep gradients on site – these must be taken into account at planning stage when determining the braking distances required to stop the OTP.

During work you must:

- Assess whether poor rail head conditions have become present on site.
- Observe during OTP operations that sufficient braking distances are being applied.
- Observe any changes in site conditions that could introduce poor rail head conditions.
- Advise the MC/CC/MO on any concerns they may have relating to poor rail head conditions.

8. POS Representative - OTP Working next to any lines open (ALO) **Key Points**

It is important before working next to ALO to review the planned method of working to confirm that the system is suitable for the location and the work being undertaken.

Before work you must:

- before on/off tracking or working, check whether the machine EAC permits usage under ALO conditions.
- establish that the ALO working method is detailed in the site documentation and is suitable for that location.
- speak to the site staff involved in setting up and implementing the system to establish if they fully understand the process which is to be adopted on site.

During the work you must:

- observe the ALO working method to establish it has been implemented correctly.
- observe that the OTP only starts to work when the person in charge of the method of working has given permission to do so.
- Advise the MC/CC/MO on any concerns they may have relating to the method of ALO working.
- Monitor the work and manage any changes to the plan if necessary

9. Plant – Person Interface *Key Points*

General

Appropriate exclusion zones around the machine must be set up by the MC/CC for their safety and that of other site personnel.

The MC/CC and all other staff working adjacent to the machine must remain in view of the operator when the vehicle is moving or operating.

All staff working in the vicinity of OTP must be briefed of the limits of operation and any movements taking place by the COSS or SWL in charge of safe system of work.

The following illustrations are typical examples of the danger zones that need to be controlled by the MC/CC.

Remember – if you cannot see the operator clearly he cannot see you.



*Person is not
in operators
area of vision*

9. Plant – Person Interface **Key Points**

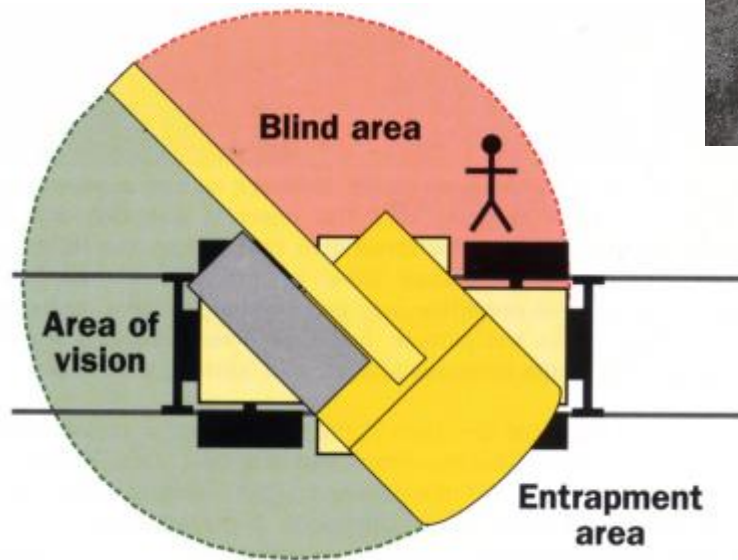


Blind Area

Blind Area – The operator is unable to see obstructions and personnel in this area.



Blind Area



Area of vision – The operator is able to see obstructions and personnel in this area but not the whole area at any one time.

Entrapment Area – Depending on the design of the machine there is a risk of personnel entrapment between the rear of the machine superstructure and any fixed structures.

Note - All of these areas move as the machine superstructure slews.

9. POS Representative - Plant/Person Interface

Key Points

Exclusion zones around plant must be included within the OTP plan (e.g. the 'Control of Activities Risk Section' of the 'Work Package Plan' and 'Task Brief')

Before work you must check staff have been briefed on:

- the dangers of working near or around plant.
- the reason for exclusion zones.
- not to enter an exclusion zone unless authorised and it is safe to do so.
- To always comply with site instructions relating to OTP movements.

During work you must:

- observe and establish the effectiveness of the exclusion zones.
- establish if the MC/CC is in a position of safety when working with the OTP.
- observe whether the MC/CC has set up effective communication with the Machine Operator (MO).
- observe if any other site staff are in, or encroaching on, an area where they could be endangered by OTP movements – if they are move them to a place of safety and review/advise them on their safe system of work.

10. POS Representative - OTP Attachments **Key Points**

All attachments that are to be used on site, must be planned in advance, included in site documentation, suitable for the activity and inspected prior to use.

Before work you must check staff have been briefed on:

- the dangers of working near and around plant when attachments are being used.
- the need to maintain exclusion zones during activities with specific attachments.
- the need to check that all attachments are in their inspection date prior to being used on site.
- not to use an attachment unless it is correct for that particular task.
- the importance of reporting defective attachments.

During work you must:

- observe that the correct attachment is used for the correct activity, if the attachment is incorrect for the activity ask the MC/CC to stop and review task operation.
- observe any attachments that are not being used are located in a safe area.
- speak to the MC/CC to see if they have any concerns over the attachments being used.

11. POS Representative - OTP Emergency Arrangements

Key Points

Emergency situations may develop on site at any time which, could endanger site staff and trains. Poor site communications and disregarding rules can lead to these situations occurring. These situations can be made worse if the correct emergency arrangements are not “understood and implemented”.

Before work you must:

- establish that the planned emergency arrangements are documented and available on site.
- establish that the emergency arrangements/contacts are included in OTP Briefing.
- establish that the documentation clearly describes the site location/site of work (this is particularly important if there is a need to call on the emergency services to attend site).
- establish if emergency equipment is available.
- Establish the arrangements for machine repair/recovery in case of machine failure or breakdown.

During work, you must:

- speak to the MC/CC/MO and confirm that the emergency (protection) equipment is available either with the OTP or with the MC/CC.
- ask the MC/CC to describe the arrangements he would follow if the OTP failed and fouled an open adjacent line.
- ask the MC/CC is he satisfied with the emergency arrangements as stated in the OTP Brief

12. If Things Go Wrong *Key Points*

You must always follow the planned procedures when things go wrong. Things to think about:

- Take the necessary measures to protect the line as a matter of priority.
- Contact emergency services (if required) and inform the relevant Control Centre. Be sure to provide as much information as you can concerning the incident. **Remember: Who, What, When, Where, and Why!**
- If plant or equipment is involved and been the cause of an incident, injury or worse, give details of the plant type, fleet number, and owner. Also ensure that the plant item is quarantined on site pending investigation or Control has advised of any other arrangements that have been made.
- Where lift plans do not cover the items to be lifted, ensure that the lift plan is only amended by a competent Lift Planner.
- A Lift Planner may be on site, but if not, then make arrangements for the On-Call Lift Planner to agree and sign off any proposed changes.
- If plant breaks down, arrange for the on-call fitter to attend should the MO not be able to safely repair the item.
- If there is a fuel or hydraulic oil spillage, ensure the machine is switched off, and ensure that the spill kits are used to mop up or contain the spillage. Contact control, and give your best estimate of the quantity of fuel or oil spilled.
- You must inform the PC's site representative of your actions.

Summary

The previous slides have highlighted some of the dangers when working with plant and summarised the specific responsibilities of personnel who control OTP operations.

These slides have been developed to assist you in your role as POS Provider or POS Representative when OTP operations are taking place.

REMEMBER

EFFECTIVE CONTROL = SITE COMPLIANCE

→→ SAFE SITE ←←

Further Information

If you wish to provide feedback on this presentation or require further information on POS please use the contact details below:

POS@networkrail.co.uk

OR

LicenceSubmission@networkrail.co.uk