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M&EE Networking Group Code of Practice for Planning For the Use of OTP

Document revision history

Issue	Date	Reason for change
1		First issue (now withdrawn)
2		Reissued following review (now withdrawn)
3	Nov 2001	Reissued following review (now withdrawn)
4	Dec 2006	Reissued following review (now withdrawn)
5	Mar 2009	Re-issue following complete review and realignment of COP0011 and COP0002 COP0002 Issue 5 now withdrawn.
6	Mar 2009	Re-issued to correct incorrect reference to HSE Guidance Note
7	Jul 2010	Review following the recent COP0016 issues and realignment of COP0002 and COP0011 in respect of planning and lifting operations Requirements for competency of lift planners removed

Background

A sub-group of the M & EE Networking Group have looked at the planning and management of road-rail vehicles and rail mounted maintenance machines and recommend the following as good practice for the industry.

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Sign off

The M & EE Networking Group agreed and signed off this Code of Practice on 31 July 2010 (in correspondence) and published on 4 September 2010

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Purpose

This Code of Practice details the minimum requirements for planning for the use of OTP excluding Lifting Operations.

Scope

This Code of Practice applies to all OTP used within engineering possessions or on or near the line. This also includes OTP trailers and attachments.

NOTE The principals contained within this Code of Practice should also be considered when planning the use of mobile construction plant, not on rail but "on or near the line".

NOTE Where attachments are required to be lifted onto the line, refer to COP0011.

NOTE The planning and execution of lifting operations are outside the scope of this document and are detailed in COP0011.

NOTE Further information on the use of MEWP's can be found in COP0024

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Definitions

Attachments

An attachment is any equipment that is mechanically fixed to and / or powered or controlled from the host vehicle; this could be a lifting accessory.

NOTE Mechanically fixed should be taken to indicate that the attaching point is semi-permanent (very often a Quick Hitch type device). Equipment which requires skilled fitting staff to assemble / remove should not normally be thought of as an attachment – such equipment is a part of the original vehicle, and its addition is a modification to the vehicle.

Crane Controller (CC)

Person competent to control single machine lifting operations and holding a valid National Machine and Crane Controller Competence Scheme OTP Competence Card and Secure Counterpart endorsed as Crane Controller (CC) for the specific crane/excavator crane type concerned.

Crane Controller Tandem Lift (CCTL)

Person competent to control Tandem Lifting operations and holding a valid National Machine and Crane Controller Competence Scheme OTP Competence Card and Secure Counterpart endorsed as Crane Controller Tandem Lift (TL) for the specific crane/excavator crane type concerned.

Machine Controller

Person competent to control On-Track Plant (OTP) and holding a valid National Machine or Crane Controller Competence Scheme OTP Competence Card and Secure Counterpart endorsed as Machine Controller (MC) for the specific RRV/RMMM type concerned.

On Track Plant (OTP)

Vehicles with rail wheels capable of running on railway track, limited by their engineering acceptance to running within a possession only. These comprise rail mounted maintenance machines (RMMMs), road-rail vehicles (RRVs), and their trailers.

On or Near the Line

Within 3 metres of the nearest rail or on the line itself.

Slinger

Person responsible for attaching and removing lifting accessories and relaying crane controllers commands.

1 Planning OTP Operations (General)

1.1 Definition of planning

1.1.1 Planning in the context of this code of practice refers to:-

- a) consideration of the Infrastructure Manager's requirements and limitations
- b) analysis of planned activities and site constraints / hazards in order to identify appropriate type of plant and attachments for the work to be undertaken safely
- b) identification of competence requirements of site staff involved in deploying plant
- c) identification of necessary resource required
- d) production and documenting of safe systems of work
- e) contingency / emergency planning

1.2 Stages of Planning

1.2.1 The following 'stages' are the minimum requirements to be considered when planning the use of any OTP. All persons involved in planning these activities should have a knowledge and understanding of stages a) – g):

- a) identify work required
- b) identify hazards through site survey as appropriate
- c) develop method of work, identifying plant requirements
- d) establish manpower requirements and competencies
- e) determine possession and isolation arrangements
- f) identify the contingency and emergency requirements
- g) document the plan

2 Stages of Planning of OTP Operations

2.1 Stage a) Identify Work Required

2.1.1 Nature and scope of work activity needs to be established.
(Examples listed below):

- inspection
- installation
- vegetation control
- material and / or personnel transport
- infrastructure maintenance / renewal (identify specific tasks required, examples below):
 - excavating
 - changing rails
 - drain / cess clearance etc

2.2 Stage b) Identify hazards through site survey as appropriate

2.2.1 Identification of hazards, risks and restrictions associated with work requirements identified above. (Examples listed below):

- buried services (refer to HSG47)
- lifting requirements
- overhead power lines (refer to GS6)
- OLE, staggered isolations, cross track feeders
- DC conductor rail floating sections
- on and off tracking (refer to M&EE CoP0007)
- limited and restricted clearances

- structures (signal posts, OLE stanchions, bridges, buildings, tunnels, platforms etc)
- level crossings, points & crossings, road closures
- S&T cables, equipment and bonding cables
- infrastructure features including catch pits, culverts, axle counters, TPWS grids etc.
- track layout, raised check and guard rails, gradient, cant, line speeds, railhead conditions, grease pots, direction of travel etc.
- environmental hazards & special considerations e.g. noise, working over water / enclosed spaces, sites of special scientific interest etc, local authority restrictions
- track access constraints
- adjacent lines.

This list is not exhaustive.

2.3 Stage c)

Develop method of work, identifying plant requirements

- 2.3.1 Taking account of the work, site hazards and constraints identified above, develop the method of work to be undertaken and appropriate plant to be used.
- 2.3.2 The following must be considered when selecting the optimum plant for the planned work:
- a) delivery / access requirements and restrictions
 - b) requirements of a lifting plan
 - i) refer to M&EE COP0011 for lifting plan requirements
 - ii) refer to M&EE COP0008 for tandem lifting requirements
 - iii) refer to M&EE COP0005 for handling rail and thimbling

- c) on and off tracking, see M&EE COP0007
- d) OTP Engineering Acceptance Certificate limitations e.g. cant, gradients, working adjacent to open lines, working under live OLE, travel speed, towing and propelling capability, machine specification etc.
- e) electrified lines (OLE & Conductor Rail)
- f) OTP interface with other work and plant
- g) storing and accessibility of attachments
- h) re-fuelling requirements, site storage
- i) possession and protection arrangements required (e.g. clearance requirements, gauge infringement etc)
- j) communication arrangements (PICOP/ES/MC/CC/COSS/operator)
- k) plant work rates (productivity)
- l) specific machine hazards (available in machine specific risk assessments)
- m) potential plant availability
- n) provision of adequate site lighting

2.4 Stage d) Establish manpower requirements and competencies

- 2.4.1 Taking account of work and plant requirements, identify the following resources with the associated competencies:
- a) machine operator(s)
 - b) machine controller(s) (for supervising plant in rail mode and on/off/cross-tracking)
 - c) crane controller(s) Refer to M&EE COP0011

- d) slinger(s) Refer to M&EE COP0011
- e) other machine / work specific manpower.

2.5 Stage e)

Determine possession and isolation arrangements

- 2.5.1 Taking account of work activities and plant requirements, including access arrangements, ensure that possession and isolation arrangements are adequate.
- 2.5.2 Identify lines likely to be fouled in order to determine and document the necessary possession and protection arrangements.
- 2.5.3 Identify the control arrangements for all level crossings to be traversed by the OTP whilst in rail mode.

2.6 Stage f)

Identify required contingencies

- 2.6.1 Taking stages a) – e) into account, and using historical data and experiences, determine any additional emergency and / or contingency arrangements that may be required in response to unplanned events such as:
 - machine failures
 - fire
 - adverse weather
 - collision and derailments
 - staff shortages
 - delays in track access

2.7 Stage g)

Document the plan

- 2.7.1 Taking stages a) – f) into account, the method of work, machine and resource requirements, type of machine including limitations and restrictions should be documented for inclusion in the site specific method statement / work package plan.

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References

Document	Title
GS6	Avoidance of Danger from Overhead Electrical Lines
HSG47	Avoiding Danger from Underground Services
M&EE COP0005	Handling Serviceable Rail with Road-Rail Excavator Cranes in Rail Mode including Thimbling
M&EE COP0007	On/Off Tracking of Road-Rail Vehicles
M&EE COP0008	Tandem Lifting with two Road/Rail Cranes
M&EE COP0011	Planning and Executing Lifting Operations
M&EE COP0024	Loading of MEWPs