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# Letter of Instruction: NR/BS/LI/327 – Issue 2

## Systems of Work for OTP Working in Electrified Areas

Issue date: 1<sup>st</sup> May 2014

Compliance date: 10<sup>th</sup> July 2014

Expiry date: On compliance date of NR/PLANT/0200/module P501 (Issue 2), Systems of Work

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### Standard affected: NR/PLANT/0200/Module P501 (Issue 1), *Systems of Work*

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#### 1 Reason for issue

A further review of the risks involved in using RRV Excavators under energised Overhead Line Equipment (OLE) on Network Rail managed Infrastructure has identified a need to issue additional instructions and requirements.

*NOTE For all OTMs & OTP other than RRV Excavators please refer to Network Rail's Infrastructure Plant Manual NR/PLANT/0200*

This Letter of Instruction as been up issued to Issue two due to a discrepancy between the scope and proposed section 6.2.

#### 2 Scope

This Letter of Instruction applies to all Network Rail employees and Contractors employees when planning and managing the use of Road Rail Vehicle (RRV) Excavators on Network Rail managed infrastructure.

'Working' of RRV Excavators e.g. digging, undertaking lifting operations or any other activity that requires the RRV to be moved from its 'stowed' position under energised OLE is now a **Restricted Activity** and is **No Longer Permissible** on Network Rail Infrastructure with the following exceptions;

- Any Network Rail Business Unit or Project where an exceptional and unusual business need arises.  
*NOTE This is likely to be a single event and not undertaken regularly.*
  - For Infrastructure Projects the hierarchy of controls as detailed in Section 3 of this Instruction must be applied. A risk assessment will be submitted by the Contractors Representative Engineer and will be subject to a peer review and authorisation by the Network Rail Designated Project Engineer.
  - For National Supply Chain (NSC) and Network Operations (NO) the hierarchy of controls as detailed in Section 3 of this Instruction must be applied. A risk assessment is to be submitted by the NSC/NO representative and authorised by a Director level post.
- The following Maintenance Delivery Units (DU) are exempt from this restriction, but must apply the hierarchy of controls as detailed in Section 3 of this Instruction and be authorised by the Delivery Unit Electrification & Plant Maintenance Engineer.
  - Motherwell DU
  - Glasgow DU
  - Euston DU
  - Bletchley DU
  - Stafford DU

Requirements for working in areas with conductor rail are not changed by this Letter of Instruction. The requirements for working in these areas is covered within NR/PLANT/0200/module P501, P505, P507 and P519.

### 3 Changes

Clause	Change
6	<p>Add sub heading:</p> <p><b>6.1 General Requirements</b></p>
6	<p>Add following sub headings and clauses after lettered list:</p> <p><b>6.2 Working under energised OLE restriction</b></p> <p><b>Working</b> of RRV Excavators, e.g. digging, undertaking lifting operations or any other activity that requires the RRV to be moved from its 'stowed' position, under energised OLE is <b>Not Permitted</b> on Network Rail Infrastructure with the following exceptions;</p> <ul style="list-style-type: none"> <li>• Any Network Rail Business Unit or Project where an exceptional and unusual business need arises. <ul style="list-style-type: none"> <li><i>NOTE This is likely to be a single event and not undertaken regularly.</i> <ul style="list-style-type: none"> <li>○ For Infrastructure Projects the hierarchy of controls as detailed in clause 6.3 shall be applied. A risk assessment shall be submitted by the Contractors Representative Engineer and will be subject to a peer review and authorisation by the Network Rail Designated Project Engineer.</li> <li>○ For National Supply Chain (NSC) and Network Operations (NO) the hierarchy of controls as detailed in 6.3 shall be applied. A risk assessment is to be submitted by the NSC/NO representative and authorised by a Director level post.</li> </ul> </li> </ul> </li> <li>• The following Maintenance Delivery Units (DU) are exempt from this restriction, but shall apply the hierarchy of controls as detailed in clause 6.3 and be authorised by the Delivery Unit Electrification &amp; Plant Maintenance Engineer. <ul style="list-style-type: none"> <li>○ Motherwell DU</li> <li>○ Glasgow DU</li> <li>○ Euston DU</li> <li>○ Bletchley DU</li> <li>○ Stafford DU</li> </ul> </li> </ul> <p><b>6.3 Working under energised OLE controls</b></p> <p>If authorisation has been granted, in accordance with the exceptions in clause 6.2, due to the need arising for RRV Excavators to <b>work</b> where there is energised OLE, because of an exceptional and unusual business need, then the following planning hierarchy shall be applied:</p> <ol style="list-style-type: none"> <li>a) In accordance with the Network Rail Standard 'Working on or about 25KV AC Electrified Lines' NR/SP/ELP/29987, provide an isolation and earthing of the sections of OLE under which work is planned to be carried out.</li> <li>b) If isolation and earthing of the OLE is impracticable then after carrying out a Risk Assessment and developing a Safe System of Work it may be acceptable to use an RRV Excavator that has been fitted with a Network Rail approved Movement Limiting Device (MLD).</li> </ol> <p><b>6.4 On/off and cross tracking under energised OLE</b></p> <p>For the activities of <b>on/off or cross tracking</b> where there is energised OLE, operation of RRV Excavators shall be planned for use with the following hierarchy;</p> <ol style="list-style-type: none"> <li>a) In accordance with the Network Rail Standard 'Working on or about 25KV AC Electrified Lines' NR/SP/ELP/29987 provide an isolation and earthing of the sections of OLE under which the on/off or cross tracking is planned to be carried out. Cross tracking at a temporary RRAP is only permissible with the OLE isolated and earthed.</li> <li>b) It may be permissible to on/off or cross track a RRV Excavator fitted with a Network Rail approved Movement Limiting Device (MLD) under energised OLE if all equipment</li> </ol>

	<p>is in the stowed position. RRVs can only be on/off and cross tracked at Road Rail Access Points (RRAP) that meet the clearance requirements defined in figure 8 of NR/PLANT/0200/module P301. The operations must be supported by a Risk Assessment and a Safe System of Work that clearly shows that all clearances to the OLE can be maintained during all parts of the on/off tracking procedure.</p> <p><b>6.5 'Travelling' under energised OLE</b></p> <p>For the activity of <b>travelling</b> an RRV Excavator under energised OLE, travelling shall be planned with the following hierarchy;</p> <ul style="list-style-type: none"> <li>a) In accordance with the Network Rail Standard 'Working on or about 25KV AC Electrified Lines' NR/SP/ELP/29987 provide an isolation and earthing of the sections of OLE under which travelling is planned to be carried out.</li> <li>b) It may be permissible to travel an RRV Excavator fitted with a Network Rail approved Movement Limiting Device (MLD) under energised OLE if all equipment is in the stowed position. The travelling must be subject to a Risk Assessment and supported by a Safe System of Work.</li> <li>c) RRV Excavators without a Network Rail approved Movement Limiting Device (MLD) may travel under energised overhead line equipment from an electrically isolated and earthed on/off tracking point to an electrically isolated and earthed site of work if travelling with the machine in the stowed position and if all required clearances can be met. The travelling must be subject to a Risk Assessment and supported by a Safe System of Work.</li> </ul> <p><b>6.6 Risk assessment</b></p> <ul style="list-style-type: none"> <li>a) As it is always possible to isolate the OLE the risk assessment shall demonstrate that the safety risks of the disruption associated with the relevant isolation and/or the risks of the postponement of the activity are greater than the risks associated with options less than a full isolation and earthing of the OLE.</li> <li>b) Risk Assessment is required when considering RRV Excavator operations under energised OLE whether, 'working', 'on/off tracking' or 'travelling'.</li> <li>c) When undertaking the risk assessment consultation must take place with the relevant Network Rail Maintenance Delivery Unit Electrification &amp; Plant Maintenance Engineer to provide local hazard information e.g. wire heights etc as required by modules 2 and 3 of the Network Rail Standard 'Working on or about 25KV AC Electrified Lines' NR/SP/ELP/29987.</li> </ul> <p><b>6.7 Planning</b></p> <p>All relevant permits to work shall be obtained prior to works commencing.</p> <p><b>6.8 Approved Machines</b></p> <p>A list of RRV excavators that are fitted with a Network Rail approved Movement Limiting Device (MLD) with a known reliability is held on safety central; <a href="http://www.safety.networkrail.co.uk/">http://www.safety.networkrail.co.uk/</a>. This list will be updated periodically to reflect any new machines that are fitted with approved MLD.</p>
6	<p>Add sub heading before current final paragraph:</p> <p><b>6.9 External Overhead Lines</b></p> <p>When working in an area where overhead electric power lines which do not form part of the railway electrification system cross the railway, then the safe system of work shall take account of this.</p>

## Authorisation of Standard Owner

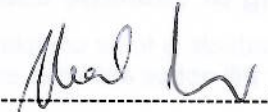
Authorised by



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Jim Allenden; Professional Head [Plant and T&RS]

## Authorisation of appropriate Delivery Function authority

Authorised by



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Neal Lawson;  
Director, Maintenance and Operations Services  
Network Operations

Authorised by



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Roan Willmore;  
Director, Safety & Sustainable Development  
Infrastructure Projects

#### 4 Recipients

Name	Post
Jim Allenden	Professional Head [Plant and T&RS]
Alan Brookes	Head of Infrastructure Maintenance Safety & Compliance
Roan Willmore	Director S&SD, Infrastructure Projects
Caroline Meek	Head of HSEA, National Supply Chain
Guy Wilmshurst-Smith	Head of Competence & Training
Paul Conway	Principal Engineer [Plant and T&RS]
Peter Ellis	Principal Engineer [Plant and T&RS] and Plant CDG Chair
Elaine Mortiboy-Clarke	Assurance Specialist

#### 5 Details of briefing or cascade communication process

Briefing with affected individuals is to be complete by no later than the compliance date of 1<sup>st</sup> July 2014. Briefings to Issue 1 were carried by national teleconferences those who attended will receive an email brief of Issue 2. The requirements and future up Issue were included in the Issue 1 briefing. All other briefings will be by cascade and by face to face meetings at national forums such as the Rail Plant Association and M&EE networking group as appropriate. For IP a cascade will be provided through the Assurance team.