

Working Adjacent to DC Electrified Rails Risk Level 1 - 3

RCS No: NR/L3/MTC/RCS0216/GA20 Issue: 3

Property



Electrocution

- Burns
- Eye damage

Personnel Involved

E&P	✓
S&T	✓
Track	✓
Off Track	✓

Implemented

Rv

Tools /Insulated ToolsNon-conducting measuring equipmentEquipmentConductor Rail ShieldsTools and measuring equipment

Plant

Key Risks

None

Work Adjacent to Conductor Rails

- Risk Level 1 = Tasks where isolation of the conductor rail is needed
- Risk Level 2 = Tasks carried out closer than 300mm to the live conductor rail

Controls

• Risk Level 3 = Tasks carried more than 300mm from a live conductor rail

SECTION A - ALL RISK LEVELS

			БУ	
Stı	uck by train	 See Risk Control Sheets NR/L3/MTC/RCS0216/GA01 – A Work on or Near the Line 	ll Staff	
	Slips, Trips (Falls	 See Risk Control Sheet NR/L3/MTC/RCS0216/GH02 – Underfoot Conditions 	All Staff	
		ATION		
	Electrocution / Burns / Ey Damage - Falling onto	· · · · · · · · · · · · · · · · · · ·	Defined Competent Person	
	making contact with live rail	Issue a Conductor Rail Permit to the COSS or secure a temporary isolation	Authorised Person	
		 All staff working adjacent to DC electrified rails shall be trained and competent in PTS (DC) as a mandated minimum requirement 	Line Manager	.]
		Brief all staff in the working party (including contractors) on the Risk Control Sheet for this activity	Team Leader	
		Re-assess the work when a change in work method/scope occurs. Implement additional controls or seek further isolation of the conductor rail as necessary	Team Leader	



SECTI	SECTION C - RISK LEVEL 2 - WORKING LIVE < 300MM		
Key Risks	Controls	Implemented By	
Electrocution / Burns / Eye Damage - Falling onto live rail	 All staff working adjacent to DC electrified rails shall be trained and competent in PTS (DC) as a mandated minimum requirement Brief all staff in the working party (including contractors) on the Risk Control Sheet for this activity 	Line Manager Team Leader	
	 Consider the actions to be performed and brace against the possibility of falling towards live rail (e.g. tools slipping etc.). Place sufficient Conductor Rail Shields on the live rail adjacent to the site of work. Leave them in place for the duration of the work Supervise inexperienced staff closely. 	Team Leader / Staff	
	 Staff and contractors shall be competent in the activity under these conditions (working live) and follow the method of work / work instructions. If the method of work changes for any reason stop the work and re- assess. Implement additional controls or request an isolation of the conductor rail 	Line Manager / Team Leader	
Electrocution / Burns /Eye Damage — Contact with live rail with tools, work equipment or parts of the body	 Confirm that tools greater than 300mm in length shall be insulated to BS 8020. Use Insulated tools (Unless specifically excepted by the DU WHS&EA) Place sufficient Conductor Rail Shields on the live rail adjacent to the site of work. Leave them in place for the duration of the work Do not use metal (conducting) measuring equipment or tapes. Their use is prohibited 	Team Leader / Staff	
	All above controls apply at guard board locations. Seek advice if guarding prohibits correct fitting of conductor rail shield	Line Manager / Team Leader	
Electrocution / Burns / Eye Damage - Defective tools and equipment	 Check tools and equipment prior to use. Replace if damaged, particularly the insulation of the tools and Conductor Rail Shields 	Line Manager / Team Leader / Staff	



Key Risks	Controls	Implemented By
Electrocution / Burns /Eye Damage - Losing control of materials e.g. long strip heaters.	 Plan work beforehand to minimise work in close proximity to conductor rail. Handle heavy or long items with the appropriate number of people in a pre-planned move 	Team Leader
Electrocution / Burns / Eye Damage – Walking into flooded areas	You must not step into flood water which may be in contact with the CRE	Team Leader
	INCREASED RISK EXISTS IF:-	
Icy conditions exist	 Assess underfoot conditions and postpone work if ice remains a risk at the site of work 	Team Leader
Continued crossing of live rail is necessary	 Plan and conduct work to minimise the number of times the live rail is crossed 	Team Leader / Staff
In darkness	 Provide site lighting if working live during the hours of darkness. Use lighting suitable for the task performed (refer to NR/L3/MTC/RCS0216/SP16 - Use of Site Lights) Wear and use headlamps 	Team Leader
You are sweating and partially clothed due to hot weather	Cover upper and lower body with clothing	Team Leader
During very heavy (Torrential) rain	 The insulation properties of shields and tools can be compromised during very heavy (torrential) rain. Therefore if the work is to be completed, elevate risk controls to risk level 1 	Staff



SECTION D - RISK LEVEL 3, WORK >300MM		
Key Risks	Controls	Implemented By
Electrocution / Burns / Eye Damage - Falling onto live rail	 All staff working adjacent to DC electrified rails shall be trained and competent in PTS (DC) as a mandated minimum requirement Brief all staff in the working party (including contractors) on the Risk Control Sheet for this activity 	Line Manager Team Leader
	 Consider the actions to be performed and brace against the possibility of falling towards live rail (e.g. tools slipping etc.). When the risk cannot be predicted, place Conductor Rail Shields on the live rail. Leave them in place for the duration of the work Re-assess the work when a change in work method occurs. Implement additional controls or seek an isolation of the conductor rail 	Team Leader / Staff
Electrocution / Burns / Eye Damage – Contact with live rail with tools or work equipment	 Where there is a possibility that tools could contact the conductor rail, confirm that tools greater than 300mm in length shall be insulated to BS 8020 (Unless specifically excepted by the DU WHS&EA) If necessary, place sufficient Conductor Rail Shields on the live rail adjacent to the site of work. Leave them in place for the duration of the work Do not use metal (conducting) measuring equipment or tapes. Their use is prohibited All above controls apply at guard board locations. Seek advice if guarding prohibits correct fitting of conductor rail shield 	
Electrocution / Burns / Eye Damage - Defective tools and equipment	 Check tools and equipment prior to use. Replace if damaged, particularly the insulation of the tools and Conductor Rail Shields 	Line Manager / Team Leader / Staff
Electrocution / Burns / Eye Damage - Losing control of materials e.g. long strip heaters.	 Plan work beforehand to minimise work in close proximity to conductor rail. Handle heavy or long items with the appropriate number of people in a pre-planned move 	Team Leader Team Leader
Electrocution / Burns / Eye Damage – Flooded areas	You must not step into flood water which may be in contact with the CRE	Team Leader



	INCREASED RISK EXISTS IF:-	
Icy conditions exist	 Assess underfoot conditions and postpone work if ice remains a risk at the site of work 	Team Leader
Continued crossing of live rail is necessary	 Plan and conduct work to minimise the number of times the live rail is crossed 	Team Leader / Staff
In darkness	 USE adequate lighting– refer to NR/L3/MTC/RCS0216/SP16 - Use of Site Lights Wear and use headlamps 	Team Leader
Hot weather / sweating	Cover upper and lower body with clothing	Staff
During very heavy (Torrential) rain	The insulation properties of shields and tools can be compromised during very heavy (torrential) rain. Therefore if the work is to be done, elevate risk controls to risk level 1 Note: In normal circumstances it is expected that work would be stopped in any case during very heavy (torrential) rain. It is likely therefore that work which is to be completed in this situation shall be of an emergency nature.	Team Leader

PPE Required by NR / Maintenance Policy If safety glasses introduce a risk (ie weather conditions) then the Team Leader shall assess the risk. The outcome of the assessment shall be recorded on the SSOWPS pack and Wear safety glasses may be removed. **Wear Safety Wear Head** Hi This does not supersede the Glasses to **Protection Protection Visibility** requirements for eye protection detailed **BS EN166.F** Clothing on relevant Task Risk Control Sheets. Additional PPE Required by Task Risk Control Sheet Wear Hand Glasses to **Protection BS EN166.F**