Risk Assessment - Working Outdoors in Extremes of Weather

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Permanent Way work is an entirely outdoor activity. Volunteers are subject to extremes of weather, from snow and ice, to fog, rain and extremes of heat.

Department: Permanent Way
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WORKING IN WINTER: Cold, Snow and/or Ice

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Health Risks / Personal Injury Working in cold conditions poses significant health and safety risks, including cold stress, hypothermia, frostbite, trench foot, and chilblains.	Volunteers, Staff & Contractors	1) CRITICAL - Elimination: Volunteers are fully entitled to not attend a work day if they deem the weather to be beyond their control based on clothing options. - Effective 2) Administrative: Volunteers are responsible for wearing and bringing the clothing they deem most appropriate for the day based on the weather forecast. - Effective 3) Administrative: Warm tea and electric heaters are available in the P-way Mess Coach at all times, but the Mess Coach is not always available on site. - Improvable 4) Administrative: First Aiders should refresh their knowledge on how to spot and treat people with developing heath issues bought on by cold weather in advance of the winter season. - Improvable 5) Administrative: Volunteers reminded that going home, not coming in, or stop working when they recognise that they have reached their lowest working capability is acceptable. They are encouraged to speak up for their own safety without repercussions. - Effective 6) Administrative: Vibration Hazards: Increased risk of Hand-Arm Vibration Syndrome (HAVS) when using tools in cold conditions - reduce or eliminate exposure times if possible, or rotate staff as necessary.. - Improvable 7) Administrative: Increased Accidents: reduced blood flow causes stiffness and impaired movement, leading to possible increase in slips, trips, and falls on ice or snow. Volunteers to be briefed and be aware of potential hazards. - Effective 8) Administrative: Muscular Injuries: Increased risk of back and other injuries due to cold, stiff muscles - give volunteers the opportunity to 'warm up' at the start of the day or after break times. - Improvable 9) CRITICAL - PPE: Volunteers to dress appropriately with additional layers of clothing as required, whilst still ensuring they comply with the PTS requirements of safety boots and a orange HV top. - Effective	3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Elimination: Do not walk on sleepers as they may be slippery. Plan a suitable walking route between sites. - Effective 2) Elimination: Good housekeeping - tools to be kept away from walking routes or working areas unless they are in use. - Effective 3) Substitution: A supply of warm blankets could be provided for use in an emergency if required. Space blankets could be used to prevent further heat loss, but these do not produce heat on their own. - Improvable 4) Substitution: Avoid working on wet and cold days if possible, but this is not always achievable. - Improvable 5) Substitution: Reduce or eliminate working in such cold weather extremes where possible. - Effective 6) Substitution: Provide warm area to rest and recuperate between activities or duties - Improvable 7) Administrative: First Response Team are available to call if required : 07395 448213 - Effective 8) Administrative: Work location and task to be planned to avoid exposed locations, such as on embankments (to reduce additional wind chill) or in cuttings (where no sun reaches). If possible, sheltered locations should be chosen. - Improvable 9) Administrative: The PIC to monitor all volunteers' health throughout the day (simple questions will suffice) and take action if necessary - implement a 'buddy system' or send the volunteer home. - Effective 10) Administrative: The PIC should be observant of volunteers' mental acuity and dexterity during periods of working in the cold weather and intervene as necessary. - Effective CONTINUES ON NEXT PAGE	3 x 1 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
					11) PPE: Volunteers should ensure that if they wear head coverings, such as wooly hats, that this does not affect their hearing, preventing them from hearing an approaching train. - Effective		
Operations	Operational Risks Consequential risks as a result of working in cold weather.	Volunteers & Staff	1) CRITICAL - Engineering: Certain track maintenance tasks should not be undertaken in extremes of cold (such as the changing of fishplates) unless it is required as an absolute emergency. Refer to the Track Work Information documents for specific guidance. - Effective 2) Administrative: Decreased Performance: Lowered concentration and dexterity increase the risk of errors while operating machinery. - Improvable	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

WORKING IN SUMMER: Extremes of Heat

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Health Risks / Personal Injury Working in extremes of heat can pose significant health and safety risks, including heat stroke, exhaustion, dehydration, cramps and an increase in accidents due to sweaty, slippery hands.	Volunteers & Staff	1) Elimination: Volunteers are entitled to not attend work days when they consider the heat too much for them on a personal level. This is encouraged and is without repercussions.. - Effective 2) Substitution: Work Scheduling: Rescheduling heavy work for cooler parts of the day, or move to other days if necessary and possible - Effective 3) Engineering: Rest Breaks: Allowing regular breaks in cool, shaded areas where possible. - Effective 4) Engineering: Acclimatisation: Workers should gradually adjust to hot conditions and pace themselves as necessary. - Effective 5) Administrative: Hydration: Providing ample water - bottled water is available from RCS. - Effective 6) Administrative: Vulnerable Workers: Those with underlying health conditions are encouraged to not attend or over-exert themselves. They are encouraged to confidentially inform the PIC of any conditions they have which might affect their work in such heat. - Effective 7) CRITICAL - PPE: Volunteers advised to wear appropriate PPE, including lightweight clothing, hats and suncreams, but to still comply with PTS requirements of safety boots and orange HV top. - Effective 8) CRITICAL - PPE: Despite the heat, gloves should still be worn at all times to provide (a) hand protection and (b) to provide sufficient grip. - Effective	3 x 2 = 6 Medium - Risk to be minimised and controlled so far as is reasonably practical.	1) Substitution: Training & Awareness: Educating staff (especially PICs) on the signs of heat stress, proper hydration, and sun protection. - Improvable 2) Administrative: Check vehicles prior to onset of hot weather to make sure air conditioning system is working. - Improvable 3) Administrative: Educate volunteers (especially PICs) staff to recognise the early symptoms of heat-related illness (e.g., dizziness, nausea, headache). - Improvable 4) Administrative: If volunteers wear shorts or short-sleeved tops, the PIC should ensure they do not undertake tasks which expose their bare skin on their arms or legs to unnecessary injury (e.g sparks from the rail saw) - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Operations	Operational Risks Consequential risks as a result of working in hot weather.	Volunteers & Staff	1) CRITICAL - Elimination: Certain track maintenance tasks should not be undertaken in extremes of heat (such as working on CWR sections of track) unless it is required as an absolute emergency. Refer to the Track Work Information documents for specific guidance. - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

ALL YEAR : Rain

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Health Risks / Personal Injury Working in the rain significantly increases the risk of slips, trips, and falls due to slippery surfaces, and poses dangers like hypothermia, and reduced visibility. It also lowers manual dexterity, making it harder to handle equipment securely.	Volunteers & Staff	1) CRITICAL - Engineering: Electrical Hazards: Rain can cause water ingress into electrical equipment, leading to potential malfunctions, short circuits, or fatal electric shocks : petrol and battery tools to be kept under cover when not in use and care taken when they are used in the rain. - Effective 2) Engineering: Health Issues (Cold Stress): Exposure to cold and wet conditions can lower body temperature, resulting in shivering, reduced coordination, and, in severe cases, hypothermia : work during periods of heavy or continuous rain to be re-scheduled if possible. Otherwise a place which is dry and warm should be provided to allow volunteers to take a break, warm up and dry off. - Improvable 3) CRITICAL - Engineering: Reduced Visibility: Heavy rain may obscure sightlines, making it difficult to see oncoming trains : if the minimum sighting distance cannot be achieved, work must not take place on running days. - Effective 4) CRITICAL - Engineering: Reduced Manual Dexterity: Wet and cold hands struggle to grip tools and equipment, increasing the risk of dropping objects : grip gloves should be worn at all times - Effective 5) CRITICAL - Administrative: Slips, Trips, and Falls: Wet surfaces reduce traction, making this the most common danger, especially on sleepers and slippery (muddy) ground : volunteers to abide by PTS training and not walk on sleepers (wooden or concrete) and should take care when walking on other surfaces to and from the worksite. Good housekeeping practices should be followed to keep tools in one place to avoid them presenting a trip hazard. - Effective 6) Administrative: The PIC is encouraged to adjust the working pace. By working more slowly and deliberately, this can help to avoid accidents - Improvable 7) PPE: Volunteers encouraged to wear appropriate PPE, such as waterproof clothing without compromising the PTS requirements of safety boots and orange HV top. - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	1) Administrative: Report incidents – know who is responsible for safety and, if you spot either a hazard on site or a colleague experiencing the ill-effects of bad weather, report it immediately so that corrective action or treatment can be swift. - Effective	2 x 1 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a

ALL YEAR : Fog

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Health Issues / Personal Injury	Volunteers & Staff	1) CRITICAL - Elimination: Reduced Visibility: Heavy fog can distort a person's perception of speed and distance, which can lead to misjudgments and making it difficult to see oncoming trains : if the minimum sighting distance cannot be achieved, work must not take place on running days. - Effective 2) CRITICAL - Elimination: If works are essential, working on the tracks when there is heavy fog must only be done under a full line possession and with the PICOP on site for the duration of the works. - Effective	3 x 1 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	1) Engineering: The use of heavy machinery, such as the telehandler or the RRV should be postponed, or its use heavily limited due to poor visibility not only by the operator, but by the nearby workers. - Effective	3 x 1 = 3 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a

ALL YEAR: Darkness

Type	Hazard Cause	Persons Affected	Control Measures	L S T Overall	Additional Control Measures	L S T Overall	Owner/Action
Health and Safety	Personal Injury Working in darkness with impaired visibility	Volunteers & Staff	1) CRITICAL - Elimination: Working in hours of darkness is discouraged and never planned unless it is an absolute emergency. Studies show there is up to a 30% higher risk of accidents or injuries on the job, particularly in industrial settings, due to decreased alertness. - Effective 2) CRITICAL - Administrative: If works are essential, working on the tracks in the hours of darkness must only be done under a full line possession and with the PICOP on site for the duration of the works. - Effective	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	1) Engineering: Provision of site lighting is never fully adequate as shadows are cast which can lead to increased risks of slips, trips or falls. Issue staff with individual torches for use. - Improvable 2) Administrative: A list of tools being used should be compiled at the start of the works, so they can all be accounted for at the end of the job, thus ensuring none are left at the worksite. - Improvable 3) Administrative: Risk of fatigue increased during hours of darkness and this should be managed by the PIC. - Improvable 4) Administrative: Suitable refreshments should be provided (e.g. tea, coffee and water) - Improvable 5) Administrative: Sufficient staff should be rostered to allow for slower work patterns, especially at late hours. - Improvable	2 x 2 = 4 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	n/a
Operations	Operational Risks Potential for tasks to have not been completed correctly, or components missing due to staff fatigue and/or low light levels.	Volunteers & Staff	1) CRITICAL - Elimination: An inspection of the work site should be undertaken during daylight and before the first train if possible, to ascertain the line is fully safe. - Effective 2) CRITICAL - Administrative: A list of tools being used should be compiled at the start of the works, so they can all be accounted for at the end of the job, thus ensuring none are left at the worksite. - Effective 3) CRITICAL - Administrative: The PIC should do a thorough examination of the worksite to ensure all tasks have been completed properly and that there are no tools, components or materials foul of the line prior to handing back the track. - Effective	2 x 1 = 2 Low - Risk to be monitored to ensure it remains adequately controlled to an acceptable level.	None	n n n	n/a

COSHH Assessments

There are no COSHH assessments associated with this risk assessment.

Reference Documents

• GWSR Working In Hot Temperatures Guidance Note - Current version, dated July 2016

Ends