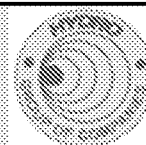


RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC01 - CONFINED SPACES – NATIONAL CATEGORY 1 (Non Man Entry)									
		Category 1 Confined Space defined as less than 1.5m deep with no further hazards eg dangerous atmosphere, flooding, insecure footing etc.									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Atmospheric Hazards (toxic gas, flammable / explosive gas and low oxygen)	Exposure to Harmful Substance										
Fall of persons or equipment into or down access shaft	Fatality, Fracture, Cut/Laceration, Concussion, Exposure to Harmful Substance										
Biological and / or chemical residue hazards	Exposure to Harmful Substance										
At Risk:	Operatives	Other Site Staff	General Public	Environment							
Alternatives (Elimination / Reduction)	1. Conduct survey from surface using mechanical assistance eg CCTV cameras where practicable. 2. Ensure that tools or material cannot fall into confined space thus requiring entry to recover.										
Training / Awareness	1. Confined Spaces C&G6150-1 qualified Operative.										
Health Standards / Surveillance	1. Immunisation: Recommended against Tetanus, Polio, Typhoid, Hepatitis A & B, Diphtheria.										
Planning / Preparation	1. Confined Space Competent Persons and Adequate Equipment: Must be assigned to job.										
Operational Control	1. Access: Access shafts to be barriered and guarded to prevent falls. Non-essential persons to be excluded from area around access shaft. Good housekeeping around shaft to prevent items falling down shaft. 2. No naked lights: In or near (5 meters) to confined space. 3. Atmosphere Testing: Using calibrated gas monitor, test atmosphere at the head of the manhole for 5 minutes before permitting entry. 4. Related Risk Assessments: Sharps & Needles and Sewage & Contaminated Waters to be followed. 5. Protected Species: Inspect surface water drains / catchpits for presence of newts or other protected species.										
Prohibitions / Restrictions	1. Trained Persons: Only persons trained in Confined Space Entry to work near or in confined spaces. 2. Confined Space Entry: No person to enter confined space eg to recover dropped equipment unless confined spaces entry procedure followed.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	Hand	Gloves - mechanical abrasion resistant	BS EN 388								
	Eye	Safety Goggles / Face Mask	BS EN 166 1B / BS EN166.3.9.B, 169/175								
	Ear	Ear Protection Helmet Mounted	BS EN 352 Part 3								
	Head	Hard hat	EN397								
	Footwear	Safety Boots	BS EN 345								
	Legs	Workwear / Wetwear	-								
	Body	High Visibility jackets or vests	Relevant to Work Environment								
		Gas Monitor	-								
	Wash and Welfare Facilities	-									
Emergency Preparedness and Response	1. First Aid: Adequate First Aiders and First Aid Equipment immediately available. 2. Emergency / Rescue Procedures: Must be in place for persons who fall into confined spaces.										

Approved By	Version	Assessment Date	Review Date
Liam Sellar	1-1	30 October 2019	Change Point, Post Incident, Lessons Learnt & / or Oct-22

RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC02-NC2: CONFINED SPACES ENTRY ON SAFETY LINE – NATIONAL CATEGORY 2 ENTRY									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Atmospheric Hazards (toxic gas, flammable / explosive gas and low oxygen)	Exposure to Harmful Substance, - Poisonous, Asphyxiation, Explosion, Fire										
Fall of persons or equipment into or down access shaft	Fatality, Fracture, Concussion, Cut / Laceration, Exposure to Harmful Substance										
Excessive heat and humidity	Exhaustion, Heart failure, Fainting										
Flooding / Engulfment in Free Flowing Solids	Drowning, Asphyxiation, Crushing										
Biological and / or chemical residue hazards	Exposure to Harmful Substance										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	1. Conduct survey from surface using mechanical assistance including CCTV Cameras where practicable.										
Training / Awareness	1. Confined Spaces CP1 qualified Top Man and CP2 qualified Confined Space Entry Operative.										
Health Standards / Surveillance	1. Confined Spaces Medical including Lung Function Test. 2. Face Fit Test. 3. Inoculation recommended against Tetanus, Polio, Typhoid, Hepatitis A & B, Diphtheria. Leptospirosis / Weils Disease Information Card issued.										
Planning / Preparation	1. Conditions: Check weather conditions and any tide cycles that could affect fluid levels.										
Operational Control	1. Access: Access shafts to be barriered and guarded to prevent falls. Non-essential persons to be excluded from area around access shaft. Good housekeeping around shaft to prevent items falling down shaft. 2. No ignition sources with 5 meters to confined space. All equipment used in confined spaces intrinsically safe ATEX rated. 3. Any pumping equipment or process that could affect safety is made safe ie locked &/or isolated. 4. Atmosphere Testing: Using calibrated three/four gas monitor, test atmosphere at the head of the manhole for 5 minutes before permitting entry, and then continue monitoring during entry. 5. Entry: Undertake entry into confined space with compliance to the Confined Space Permit to Enter 6. Related Risk Assessments: (1) Sharps & Needles and Sewage, (2) Contaminated Waters, (3) Habitat Protection: Inspect surface water drains / catchpits for presence of newts or other protected species.										
Prohibitions / Restrictions	1. Trained Persons: Only persons trained in Confined Space Entry and medically fit to work near or in confined spaces. 2. Confined Space Entry: No person to enter confined space (e.g. to recover dropped equipment) without appropriate training, breathing apparatus and rescue equipment.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	Hand	Gloves - mechanical abrasion resistant	BS EN 388								
	Eye	Safety Goggles	BS EN 166 1B / BS EN166.3.9.B, 169/175								
	Head	Hard hat	EN397								
	Footwear	Safety Boots	BS EN 20345								
	Legs	Workwear / Wetwear	-								
	Other	Gas Monitor (3 or 4 gas)	-								
	Breathing	NC2: 10 minute Escape Set or Turtle Pack	-								
Emergency Preparedness and Response	1. Gas Detection: If gas detector sounds or other problem raised, raise alarm by shouting and Top Man to immediately engage tripod and winch and raise the operative to the surface. Operative in confined space to don emergency escape set mask.										
	2. Injured/Trapped/Unconscious Persons: If person is injured or unconscious, Top Man to immediately engage tripod and winch and raise the operative. Emergency services to be called and first aid / resuscitation administered where required.										

Approved By	Version	Assessment Date	Review Date
Liam Sellar	1-1	30 October 2019	Change Point, Post-Incident, Lessons Learnt or Oct 2022

RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC03 - DRAIN CLEANING									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Fall into Open Chamber	Fall from Height										
Slippage on Liquid Waste / Trip on Pipes	Slip and Fall										
Sewage and Contaminated Waters	Exposure to Harmful Substance; Water Pollution; Public Nuisance (Odour)										
At Risk:	Operatives	Other Site Staff		General Public			Environment				
Alternatives (Elimination / Reduction)	1. None, work necessitates exposure.										
Training / Awareness	1. High Pressure Water Jetting 2. If required: C&G Confined Spaces Entry 6150 to required level.										
Health Standards / Surveillance	1. Operatives are recommended to receive appropriate inoculations.										
Planning / Preparation	1. Plant Specific Risk Assessment: A risk assessment must be undertaken on the operation and maintenance of the plant and associated equipment. Guarding of hose reels as far as reasonably practicable. 2. Carriage of Waste: For carriage of waste company to maintain valid waste carriers license, and any subcontracted carrier to have license validated on Environment Agency Public Register.										
Operational Control	1. Spillage: Care to be taken during hose release operations. 2. Stance: Sound footing and firm hold of the equipment. 3. Debris and Spillages: Workplace and adjacent areas to be kept clear. 4. Entrapment in hose coils: Correct use of hose coils, and ensuring that hands are well clear of entrapment points. 5. Trip Hazards: Hoses placed correctly to avoid tripping hazards 6. Regular maintenance and inspection: Hoses and valves to identify damage. 7. Barriers: Around any unattended open manhole chamber. 8. Welfare: Good hygiene and hand washing to prevent illness and infection. 9. Waste Carriers License: Waste (including sewer debris and liquid) is disposed of at suitable facility with Environment Permit in place.										
Prohibitions / Restrictions	1. Confined space: No person to enter without appropriate training, equipment and adherence to confined space entry procedures 2. Sewage contaminated waters: Do not allow entry to surface water gullies. 3. COSHH Assessment: The use of disinfectant / bleach is discouraged unless specifically instructed under contract. If used ensure COSHH Assessment available and correct use of PPE.										
Personal / Environment Protective Equipment	Protection Zone	Type				Standard					
	Hand	Gloves - PVC				BS EN 374					
	Eye	Safety Goggles / For Jetting Face Mask				BS EN 166 1B / BS EN166.3.9.B, 169/175					
	Ear	Ear muffs				BS EN 352 Part 1 or Part 3 if Helmet Mounted					
	Footwear	Safety Boots				BS EN 345					
	Body	Workwear				Wet-wear where appropriate					
Emergency Preparedness and Response	1. First Aid: Adequate First Aiders and First Aid Equipment, including eye wash. 2. Welfare: Wash of any areas affected by contaminated water with hot soapy water. If any liquid is ingested or enters an open cut then seek medical attention. 3. Spilt sewage: Wash back any into manhole. Do not use disinfectant unless with a COSHH Assessment (CAG103 Jeyes Fluid).										

Approved By	Version	Assessment Date	Review Date
Liam Sellar	1-1	30 October 2019	Change Point, Post Incident, Lessons Learnt & / or Oct 2022

ARUN DISTRICT COUNCIL A/25/20/DOC

RISK ASSESSMENT AND CONTROL MEASURES



Title: **RAC05 - MANUAL HANDLING**

HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Dropping / Entrapment of weight or trapping of body parts	Fracture hands, limbs, feet										
Incorrect lifting / carrying / pushing / pulling of heavy objects	Back strain, trapped nerves, rupture, hernia, limb disorder										
Repetitive Work Patterns	Repetitive strain injury										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	1. Use mechanical assistance or team lifting; 2. Reduce load weights and specify lower weight materials / packages.										
Training / Awareness	1. Manual Handling Techniques										
Health Standards / Surveillance	1. Persons conducting manual handling to be healthy and fit and free from known muscular strain or other injury.										
Planning / Preparation	1. Specific Risk Assessment: Recorded risk assessments where weights exceed thresholds. 2. Weight Minimisation: Where reasonably practical specify low weight &/or size equipment / materials. 3. Mark load (material / plant) with weight: (or provide information in method statement). 4. Provide mechanical assistance where appropriate 5. Team Lifting: Provide assistance (team lifting) where appropriate. No lone working where team lifting may be required. 6. Work Planning: Plan work load so not to introduce work-related stress that may increase risk of poor manual handling and related hazards.										
Operational Control	Remember TILE and assess: Task ✓ Use mechanical handling eg hi-ab, crane, winch & tripod, manhole lifter, wheel / sack barrow, trolley. ✓ Use team lifting if heavy or bulky load ✓ Reduce the carrying distance ✓ Use handles / ropes to assist the lift. ✓ Store at optimum level - 10kg at floor / head height, 20kg at knee / chest height, 25kg at thigh to waist height (NB: these are guidelines not absolute limits). Use staged lifts if lifting between levels ✓ Refuse to work if any aspect of TILE cannot be applied Individual ✓ Ensure you are strong enough to lift the load ✓ Avoid extreme differences in the height and strength of the lifting team. ✓ Inform your supervisor of any health problems ✓ Ensure you are aware of any special instructions eg COSHH Assessments Load ✓ Test weight ✓ Reduce load eg remove detachable parts, don't overfill bags / boxes. ✓ Lift maintaining the centre of gravity ✓ Know if it will / shift move in transit ✓ Carry loads over 2m long with two men & supervisor if required ✓ Know if it is hot / cold / sharp / hazardous ✓ Review COSHH Assessment (Storage, Handling, Use, Disposal, Emergency Response) Environment ✓ Ensure good lighting ✓ Ensure pathways clear and free of slips & trips ✓ Identify any changes in floor level EG steps or slopes ✓ Risk assess work in restricted / confined space ✓ Protect yourself against hot / cold ✓ Establish controls if floor surface wet, dusty, icy										
Prohibitions / Restrictions	1. Do not work continuously – for repetitive work use team working, job rotation and ensure adequate rest periods. 2. Do not place self at risk or be 'macho'. Employees have the Right to Work Safe and to Refuse to Work on Safety Grounds and should report unsafe work requirements or unsafe work conditions.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	Hand	Gloves	Appropriate to the object being handled								
	Footwear	Safety Boots	BS EN 345								
	Body	Workwear	Appropriate for the weather conditions.								
Emergency Preparedness and Response	1. Emergency preparedness (first aid, fire, spill response) established.										
Approved By		Version		Assessment Date		Review Date					
Liam Sellar		1-1		30 October 2019		Change Point, Post Incident, Lessons Learnt & / or Oct 2022					

OPERATIONAL CONTROL – ACTIVITY SPECIFIC PROCEDURE	
CCTV Camera	
1.	Where possible, reduce the weight of the crawler prior to manual handling by (a) Removing the extension frame (b) Removing large wheels (c) Removing the camera unit
2.	Where the manhole is some distance away from the manhole (a) Drive the crawler to the manhole (b) Strap the crawler to rods or pole and carry between two persons
3.	Ensure the camera on the crawler unit is not hot: (a) Team leader to turn off camera lights prior to lowering or removal from the manhole. b) Ensure gloves are worn, make sure wrists are protected (wear long sleeve overalls)
4.	The crawler weight to be distributed when lowering into the manhole either by: (a) One operative to use a rope looped round the rear wheel and the second operative to take part of the weight on the main cable when lowering or raising (b) The rope to be looped around the rear wheel and the crawler and lowered or raised into the manhole while both operatives hold either end of the rope. (c) Attach the rope to the steel “U” bracket on the rear of the crawler, both operatives to take the strain on the rope only when lowering or raising. The rope is then disconnected from the crawler by entry into the confined space. Note: Make sure the main cable is not slippery due to oil, diesel or other substances.
Manhole Covers – Light, Segmental, Clover	
1.	The area around the manhole to be lifted to be cleaned prior to the commencement of lifting operations to ensure that the area is free from trips, slips (e.g. oil, grease) and provides a firm safe working area.
2.	Operative to clean out the key holes and fit correct size & type of manhole keys (forged not welded construction).
3.	Operative to ensure that any holding down bolts/screws are removed prior to lifting operation if fitted using the appropriate tools.
4.	Using appropriate tools the manhole cover should be eased to break the seal between cover & frame.
5.	Remove any debris or spillage hazards around the manhole to reduce risk of slippage.
6.	Where possible, use mechanical manual handling aid (Didsbury Manhole Lifter or similar) maintained according to manufacturers instructions, checked before use and with thorough inspection under LOLER.
7.	If mechanical assistance is not possible due to location: a) At the start of lifting operation operative to gently take the strain of the load, testing the weight to ensure within their lifting capacity. b) Where covers are of heavy cast or segmented nature, two operatives are used to lift the cover to spread the weight between two). c) Maintain the correct body posture when lifting covers. d) Where the cover cannot be removed safely or, the likelihood of injury is deemed too high that no manual handling is to be attempted notify the Supervisor.
8.	Before replacing manhole covers clean the frame seat and mark the cover & frame with the position of keyway to ensure that cover is relocated correctly first time.
9.	Where there is nowhere to place the removed cover then the process will require planning by the Supervisor and may necessitate suitable staging.
10.	Raising and manipulating covers in restricted spaces requires planning by the Supervisor.
Pipes, Poles and Other Long Objects	
1.	Pipes / valves must be stored to allow the use of appropriate mechanical aids eg hi-ab, excavator with approved lifting eye, slings, pipe trolley. Whenever practicable a hoist or crane must be used to handle pipes in and out of trenches. Where this is not possible an assessment of the operation must determine the appropriate manning levels required.
2.	Work should be planned so that pipes / valves are delivered as close to the point of use as possible.
3.	When stacking pipes or lowering pumps / valves to rest, consideration must be given to the necessary chocking of the unsupported load
4.	Pipes over 2 metres shall be carried by two or more persons and must not come in contact with any rail / structure.
5.	Handling pipes and valves in restricted spaces may require additional assessment by the Team leader or Supervisor.
Sheets and Boards (eg excavation board, ply/chip board, steel sheet, doors, glazing etc.)	
1.	Handling from the point of delivery to store should be minimal.
2.	Mechanical handling should be considered for heavy metal sheets, especially roadplates.
3.	Where the sheet material is heavy or the lift involves awkward manoeuvring, team handling will be appropriate. The number of personnel in the team will vary with the weight and dimensions of the load - each case will need to be informally assessed locally.
4.	When shuttering work is to be carried out, weather conditions should be taken into account in the task risk assessment. Sheet work should not be undertaken in high winds except in an emergency.
5.	Metal sheets should only be handled when wearing leather rigger gloves.
6.	Where sheet material is regularly manipulated, the provision of edge clamp handling aids should be considered.
7.	Manual handling of sheet material in restricted spaces may require additional supervision.
Shovel Loads and Raking	
1.	Whenever practicable the introduction of mechanical or automatic means of shovelling should be introduced.
2.	General training in good shovelling techniques to be given.
3.	Consider the use of smaller shovel heads. Ensure handles are optimum for the height of the person.
4.	Reduce the distance carried to the minimum practicable (i.e. keep buckets/containers/wheel barrows as close as possible to load moved).
5.	Reduce the amount of stooping, twisting, restriction of movement to a minimum whenever practicable (i.e. through the organisation of work or adequate trench size).
6.	Task rotation should be introduced to reduce the risk from prolonged, repetitive operations.
7.	Handling of shovel loads in unavoidably very restricted areas (i.e. small sewers) to be assessed by the Team Leader / Supervisor.
Empty and Filled Skips, Large Buckets and Skip Trolleys	
1.	A minimum of 2 men must be used to move the trolleys and skips. Filled skips must not be lifted by one person.
2.	Mechanical lifting equipment must be used to raise the skips in and out of confined spaces.
3.	Spaces where movement is extremely restricted may require individual local assessment by a Team Leader or Supervisor.

MANUAL HANDLING HAZARDS AND RISK ASSESSMENT

Load	Weight kg	Hazard (TILE)	Pre- Control Risk	Pre- Control Risk Rating	Post- Control Risk	Post Control Risk Rating
Breathing Apparatus Working Set (Putting On Kit)	6-9	3	3	9	2	6
Bagged Materials	25	4	4	16	2	8
CCTV Camera and Crawler	20	4	4	16	3	12
Clay Pipe	TBA	5	4	20	2	10
Concrete products (Blocks, Bricks, Posts)	TBA	3	3	9	2	6
Concrete Segmental Rings	TBA	5	5	25	3	15
CCTV CCU	10	3	2	6	2	6
Drums 5l, 20l, 40l	5/20/40	3	3	9	2	6
Fire Extinguisher	9	3	3	9	2	6
FlexiRod / Coiler / Cable Drums	30	4	4	16	3	12
Hoses, Plastic Pipes	TBA	3	3	9	2	6
Hoses, Cables – Pulling	Push	3	3	9	2	6
Lining Equipment (Various)	TBA	4	3	12	2	8
Manhole Covers	Upto 100	5	5	25	2	10
Office Desk, Filing Cabinet etc	TBA	4	3	12	2	8
Packages and Parcels	10 av	2	3	6	2	4
Portable Plant - Push, Pull, Carry	27	5	5	25	2	10
Portable Plant - Push, Pull only	Push	3	4	12	2	6
Sheet Materials	Upto 60	3	3	9	2	6
Shovel Loads	5	2	3	6	2	4
Skips, Buckets, Trolleys	Upto 60	5	5	25	2	10
Tool Kits	5	3	3	9	2	6
Tripods and Winches	15	3	3	9	2	6
Vehicle Batteries	16.5-38	5	5	25	4	20
Wheel / Sack Barrows	TBA	3	3	9	2	6
Wheel Bins	50	5	5	25	3	15

RISK ASSESSMENT AND CONTROL MEASURES



Title: **RAC06 - SEWAGE AND CONTAMINATED WATERS / SOILS**

HAZARDS		HARM	RISK FACTOR (in relation to harm)										
			Severity					Chance with Controls					
			1	2	3	4	5	1	2	3	4	5	
Contact with sewage and contaminated waters		Weil's disease (Leptospirosis)											
		Hepatitis A + B											
		Occupational asthma											
		Infection of and damage to skin or eyes											
		Gastro-enteritis (stomach cramps, diarrhoea, vomiting)											
		Sensitisation of skin											
Release of sewage or contaminated waters to watercourses.		Environmental Pollution - Deoxygenation, odour, visual											
At Risk:	Operatives		Other Site Staff		General Public			Environment					
Alternatives (Elimination / Reduction)	1. Exposure to sewage and contaminated water / soil can be reduced but is a consequence of working in the water and wastewater industry.												
Training / Awareness	1. Information is given on other infections and diseases that may arise from contact with sewage or contaminated waters / soil. Leptospirosis cards and information are provided. Employees are given information instruction and training regarding good hygiene procedures when working with sewage.												
Health Standards / Surveillance	1. Employees are encouraged to undertake courses of immunisation for Hepatitis A & B, Tetanus, Typhoid and Polio. Where GPs refuse to pay for this then the company will reimburse cost or arrange via occupational health provider. 2. When working near outfalls to watercourse, watercourse should be monitored.												
Planning / Preparation	1. COSHH Assessment: Has been undertaken for sewage and contaminated waters. 2. Inoculations: Employees at risk of contact with sewage are recommended to receive inoculations for Polio, Hepatitis A & B, Tetanus, and to carry Leptospirosis card. 3. Watercourses: If working in or near watercourses see separate risk assessment.												
Operational Control	1. Hygiene Procedures: Employees are required to follow good hygiene procedures when working with sewage or contaminated water or soil. Employees must refrain from smoking, drinking or eating whilst clothing or hands are contaminated with sewage. 2. Full Protective Work Wear: Must be worn at all times when in contact or working with sewage or contaminated water or soil. Cover any cuts or scratches. Assess for hypodermic needles or other penetrating objects. Do not breathe dust or vapour. 3. Surface Drains and Watercourses: Sewage and contaminated runoff to be prevented from entering surface water drains or watercourses. 4. Disposal: Dispose of sewage and contaminated waters / soil as per Waste.												
Prohibitions / Restrictions	1. Contamination: Employees must refrain from smoking, drinking or eating whilst clothing or hands are contaminated with sewage.												
Personal / Environment Protective Equipment	Protection Zone	Type			Standard								
	Hand	Gloves – PVC			EN374								
	Eye	Safety Goggles / Face Mask			BS EN 166 1B / BS EN166.3.9.B, 169/175								
	Footwear	Safety Boots			BS EN 345								
	Body	Workwear			BS EN 351								
	Suitable welfare / skin cleansing solutions provided based on site occupancy level and duration of time on site.												
Emergency Preparedness and Response	1. First Aid: Adequate First Aiders and First Aid Equipment, including eye wash. 2. Illness: If feel unwell after contact with sewage (particularly with flu symptoms) then seek medical attention and state that you have been in contact with sewage. 3. Watercourses: If discharged to watercourse contact the Environment Agency.												

Approved By	Version	Assessment Date	Review Date
Liam Sellar	1-1	30 October 2019	Change Point, Post Incident, Lessons Learnt & / or Oct 2022

RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC07 - SHARPS AND NEEDLES Working In Areas With Potential Contact With Hypodermic Needles									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Puncture wounds and cuts from sharps	Infection										
	Cuts and lacerations										
	Puncture wounds										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	1. None. The presence of hypodermic needles cannot be pre-determined.										
Training / Awareness	1. None specific – General Health and Safety Awareness including Awareness of Sharps and Needles.										
Health Standards / Surveillance	1. Employees are encouraged to undertake courses of immunisation for Hepatitis B and Tetanus.										
Planning / Preparation	1. Ensure that information, instruction and training are provided to persons affected and that an individual's immunisation is up to date.										
Operational Control	1. Look for Sharps before Commencing Work: – especially under manholes or behind / in toilet cisterns. Do Not “rummage around” in rubbish or undergrowth with hands, use shovel or bar to search. If sharps are found do not disturb them unless operatives have been given the correct equipment and instruction. Where sharps are encountered always warn other site operatives and inform client and office. 2. If trained, equipped and authorised to do so remove sharps by the following method: (a) Wear Rubber Coated Kevlar-knitted Gripped Gloves To EN 388. (b) Use tweezers or forceps to pick sharps up, do not pick up by hand even if wearing gloves. (c) Place sharps in a suitable container (these are usually made of plastic and are yellow in colour with a warning printed on the side). (d) Dispose of sharps container at a suitable place; consult line manager, Client or local authority health officer for advice. (e) Maintain personal hygiene procedures.										
Prohibitions / Restrictions	1. Do Not “rummage around”: In rubbish or undergrowth with hands, use shovel or bar to search. 2. Correct Equipment: Do not disturb sharps if you have not been given the correct equipment and instruction.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	Hand	Gloves - Rubber Coated Kevlar-knitted Gripped	BS EN 388								
	Footwear	Safety Boots	BS EN 345								
	Hands	Tweezers									
	Body	Workwear									
Emergency Preparedness and Response	1. Sharps Injuries: If an employee is cut or injected by a hypodermic needle or sharp they are recommended to seek urgent medical attention. Operations Manager should be contacted to access the Occupational Health Service for support and counselling if required.										
Approved By		Version		Assessment Date		Review Date					
Liam Sellar		1-1		30 October 2019		Change Point, Post Incident, Lessons Learnt & / or Oct 2022					

RISK ASSESSMENT AND CONTROL MEASURES



Title: **RAC09 - TOOLS AND HAND HELD EQUIPMENT**

HAZARDS		HARM		RISK FACTOR (in relation to harm)										
				Severity					Chance with Controls					
				1	2	3	4	5	1	2	3	4	5	
Injury from flying objects / particles		Injury to eyes												
Strike by tool		Broken bones												
Trip hazard		Trips and falls												
Strike by tool / Contact with sharp edge		Cuts, lacerations and bruising												
Repetitive Strain Injury		Muscular Strain												
At Risk:	Operatives		Other Site Staff		General Public					Environment				
Alternatives (Elimination / Reduction)	1. Use of portable electrical / air driven equipment may reduce muscular strain where frequent rotary action is required e.g. screwdrivers, spanners.													
Training / Awareness	1. Use of Hand Tools													
Health Standards / Surveillance	1. None required													
Planning / Preparation	1. Fit for Purpose: Tools provided must be assessed to ensure fitness for purpose and the environment in which they are to be used. Professional not domestic quality tools to be supplied. 2. Safety Knives only to be used: Open bladed knives / manually retracted knives prohibited.													
Operational Control	1. Maintenance: Tools must be properly maintained by competent persons. 2. Visual Checks Prior to use: Users must do pre-use visual checks of tools and ensure they are in good working order. Specific checks should be made as follows: Manhole keys for broken welds, Chisels for mushroom heads, handles and blades for deterioration, spanners for splayed jaws, damage to pick and shovel handles. 3. Eye Protection: To be provided and used whenever work is done using cold chisels or other tools where there is risk of flying particles or other pieces of the tool breaking off. Other PPE should be selected and used as appropriate. 4. Sharp Tools: Such as scissors and screwdrivers are to be carried and used so as not to cause injury to the user or others. Open bladed knives / manually retracted knives prohibited. 5. Correct Storage: All tools should be kept clear of unnecessary grease, moisture or dirt. 6. Work near Live Electrical Equipment: Insulated tools must be used where there is a possibility of contact with live electrical equipment or cables. 7. Good Housekeeping Procedures: Must be maintained with tools stored correctly, especially when working at height or in the presence of children.													
Prohibitions / Restrictions	1. Do not use damaged or defective equipment. 2. Tools must not be used for unintended uses e.g. scissors as knives, screwdrivers as levers. 3. Safety Knives only to be used: Open bladed knives / manually retracted knives prohibited.													
Personal / Environment Protective Equipment	Protection Zone	Type			Standard									
	Hand	Gloves - mechanical abrasion resistant			BS EN 388									
	Eye	Safety Goggles			BS EN 166 1B									
	Face	Mask - For Stone / Concrete: Disposable Dust Mask			FFP1/2 to BS EN EN 149									
	Face	Mask - For Fine Dusts: Respiratory Face Mask			BS EN 136 / 140 with filters P1 / P2 to BS EN 143									
	Footwear	Safety Boots			BS EN 345									
	Legs	Workwear												
	Body	High Visibility jackets or vests			Relevant to Work Environment									
Emergency Preparedness and Response	Suitable storage facilities for hand tools.													
	1. First Aid: Adequate First Aiders and First Aid Equipment, including eye wash.													

Approved By	Version	Assessment Date	Review Date
Liam Sellar	1-1	October 2019	Change Point, Post Incident, Lessons Learnt & / or Oct 2022

RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC10 - Vehicle and Pedestrian Management									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Collision of vehicles with persons or equipment	Person struck by vehicle										
	Injury to driver / passenger of vehicle										
	Damage to vehicles and equipment										
	Environmental damage from spillage of oils and fuels										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	1. Work should preferably be conducted at times when there is minimum vehicular or pedestrian traffic.										
Training / Awareness	1. Awareness of Red Book Chapter 8: Signing, Lighting and Guarding. City & Guilds Unit 2:10 desirable.										
Health Standards / Surveillance	1. None specific but employees must be physically fit and have good hearing and eyesight (corrected as necessary).										
Planning / Preparation	1. Consult With Client of Proposed Work. 2. Public Highway: Any proposed work directly (i.e. in the road) or indirectly (e.g. due to queuing traffic) effecting the public highway must conform to NRSWA, including holding City & Guilds Unit 2:10 desirable and pre-consultation with the relevant highways authority and Police authority.										
Operational Control	1. Vehicle Parking: Stop vehicles in a safe place and switch on roof mounted amber beacons. 2. High Visibility Clothing: All persons on site must wear certified to BS EN 471. 3. Traffic Density: Undertake assessment of traffic density, speed and weather conditions – extra precautions are required in conditions that could obscure vision or cause poor manual handling (eg heavy rain, fog, ice, snow, oil spill). 4. Vehicular and Pedestrian Traffic Management: Where possible design layout in accordance with the Red Book Street works Code of Practice (Chapter Eight). Consideration to be given to the effects of queuing traffic. 5. Pedestrian Routes: Ensure suitable pedestrian routes are provided and signed, taking especial consideration of road crossings and the increased risk of vulnerable persons. 6. Work in areas with access to the public: a) Indicate work area with cones and by road barriers with a top rail and a tapping rail b) have road barriers totally enclosing the working areas c) have cones placed outside the road barriers leaving a safety zone of at least 0.5 metres around the working areas; d) wherever possible, have site vehicles located within the working area 7. Unattended Plant and Materials: At no time shall hazardous plant, hazardous materials including hot materials, any holes in the ground or any other feature that could be dangerous to members of the public be left unprotected and unattended. Where such areas is left unattended, then the area will be protected by a security fence at least 2 metres high and fully clamped together. The base of the fence being placed to prevent tripping hazards. Signs providing the emergency contact details of the contractor shall be installed. 8. Monitoring and Assessment: Continually monitor work in progress, weather conditions, traffic density, traffic control; adjust as required. Extra precautions are required in conditions that could obscure vision eg heavy rain, fog, ice, snow, oil spill. 9. Cleanliness: Signs, cones and high visibility clothing kept clean and bright.										
Prohibitions / Restrictions	1. Unattended Plant and Materials: At no time shall hazardous plant, hazardous materials including hot materials, any holes in the ground or any other feature that could be dangerous to members of the public be left unprotected and unattended. 2. Young Persons: Persons under 18 years old are not allowed to work within live traffic.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	As required by task and environment but as minimum:										
	Body	High Visibility jackets or vests	BS EN 471								
Emergency Preparedness and Response	1. First Aid: Adequate First Aiders and First Aid Equipment, including eye wash. 2. Spill Response Kits and Fire Extinguishers: To be available in case of vehicular collision. Do not allow oils to enter drain.										
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Liam Sellar		1-1		30 October 2019		Change Point, Post Incident, Lessons Learnt & / or Oct 2022					

RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC16 – PLANTS & ANIMALS - HABITAT PROTECTION / NATURE CONSERVATION																			
HAZARDS	HARM	RISK FACTOR (in relation to harm)																			
		Severity					Chance with Controls														
		1	2	3	4	5	1	2	3	4	5										
Work in Areas of Habitat Value		Destruction of habitat.										Harm to species, including trampling and vehicle damage.									
At Risk:	Operatives			Other Site Staff			General Public			Environment											
Alternatives (Elimination / Reduction)	1. See Planning / Preparation.																				
Training / Awareness	1. Environmental Awareness.																				
Health Standards / Surveillance	1. Not Applicable.																				
Planning / Preparation	Assess habitat prior to commencing works to determine whether the site is protected or registered eg Site of Special Scientific Interest (SSSI), Site of Importance to Nature Conservation (SINC)). Contact Client if in doubt and recommend they consult with an ecologist. Seasonal Work: Though work in the winter will avoid the majority of disturbance, certain species may only appear at specific times of year (eg early / late Spring, late Autumn). Habitat data extending back at least 12 months should be collected on sites suspected of been sensitive habitats. Mitigation: Where damage is unavoidable then client approved plans established to temporarily / permanently relocate / replace species or habitats. Consultation: Ensure liaison with the client and any appointed ecologist throughout the period of the job.																				
Operational Control	Vehicle Movements: To be restricted on site and kept to designated areas only. Working Areas: To be fenced prior to work commencing and maintained. Storage Areas: To be located well away from sensitive areas. Particular care should be taken in the methods and timing of stocking and removal from these areas so to protect any animals / plants that may have migrated into the areas. Work Adjacent Watercourses: All work in, over or within 8 metres of a main river will require Consent to Effect Watercourses from the Environment Agency. In-river work should be avoided March – June. Site Lighting: Should be positioned and directed so not to intrude unnecessarily in adjacent land users. Site lighting should be at the minimum level necessary for adequate security and safety. Newts: Greater Crested Newts inhabit water but can be found in catchpits and under rocks. If newts are located within or near the work area and may be affected by the works then all work shall cease and advice from a competent person (e.g. Wildlife Trust) sought. Badgers: General disturbance and loss of foraging for badgers shall be avoided. A walkover survey should be carried out prior to construction to identify any badger setts in the area [typically in copses of trees with evidence of pits and holes being dug, particularly in sandy soils]. Badger fencing may have to be erected for protection and other measures as agreed with local badger groups (typically Wildlife Trust) and Natural England. Bats: Work on buildings and structures, especially roofs & culverts, where bats are known or suspected to roost shall be surveyed by a competent person. Authority from Natural England shall be required prior to commencement of works. Note: The presence of bats may be known by sightings, droppings (similar to mouse droppings but 4-8mm long crumbling to powder), quantities of moth wings and “chittering” noises. Birds: Loss of habitat for all birds shall be minimised. By working outside the breeding season (March to July) any impacts to populations of breeding birds will be minimised. Slow Worms: Any area likely to contain slow worms shall be inspected and any slow worms removed to a place designated by Natural England, prior to the commencement of strimming or other such clearance work. Trees: Prior to commencement of works determine from the local authority Tree Protection Officer if the tree is protected, and discuss the method of works. Trees within identified areas should be protected by fencing erected at the extent of the tree canopy or half the height of the tree (e.g. evergreens) whichever is greater. Where adjacent trees and / or hedgerows overhang the working area they shall be carefully coppiced or pollarded or pruned to avoid damaging them. Any significant work on trees shall be done by a competent person. If possible trees or shrubs should not be felled or cleared away during birds nesting periods between March and July. Protection of trees shall include prevention of compaction to roots by vehicles, raising of soil levels, placing or impervious coverings around roots, raising the water table, hazardous spillages, soil stripping or excavations.																				
Prohibitions / Restrictions	1. Notifiable Weeds and Invasive Species: The presence of notifiable weeds Japanese Knotweed, Himalayan Balsam, Giant Hogweed, Common Ragwort, Spear Thistle, Creeping of Field Thistle, Broad leaved Dock and Curled Dock must be notified to the property owner, local authority and Environment Agency / Natural England.																				
Personal / Environment Protective Equipment	Protection Zone	Type								Standard											
	Not Applicable																				
Emergency Preparedness and Response	1. Unplanned damage to areas or habitats: Report to the landowner.																				

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Liam Sellar	1-1	30 October 2019	Change Point, Post Incident, Lessons Learnt & / or Oct 2022

RISK ASSESSMENT AND CONTROL MEASURES



Title: **RAC18 - DEALING WITH THE PUBLIC - WORK IN PUBLIC AREAS AND DOMESTIC PROPERTIES**

HAZARDS		HARM		RISK FACTOR (in relation to harm)										
				Severity					Chance with Controls					
				1	2	3	4	5	1	2	3	4	5	
Aggressive Persons or Violence at Work		Fatality, Concussion, Fracture, Cut / Laceration												
Aggressive Animals		Bite – Cut / Laceration												
Inappropriate Behaviour by Employee – Actual / Accusation of		Legal Proceedings												
Properties containing Children – Additional Slip, Trip, Fall Hazards to Employee / Other		Fracture (Fall down stairs), Cut / Laceration, Burns, Bruising/ Swelling.												
Sharps and Hypodermic Needles		Exposure to Harmful Substance, Cut / Laceration												
Homes and Gardens of Unfit Habitation (Wastes, Infestation, Evidence of Drug Use, Overgrown)		Exposure to Harmful Substance, Cut / Laceration, Bruising / Swelling												
At Risk:	Operatives		Other Site Staff		General Public					Environment				
Alternatives (Elimination / Reduction)	1. Where possible arrange for occupants to vacate the premises during work.													
Training / Awareness	1. Dealing with the Public. 2. Safeguarding assessment by Disclosure and Barring Service (DBS aka CRB check) where required by Client.													
Health Standards / Surveillance	1. Employees are recommended to receive inoculation to as a minimum tetanus.													
Planning / Preparation	1. Supervision: Work in secure areas (eg. Police Stations, Law Courts, Prisons, Care Establishments etc.) may require security clearance, DBS, induction and supervision by client’s representatives. 2. Lone Working: No employee shall be assigned to lone working in domestic properties, schools or care establishments if any doubts on the integrity of the person exist. Lone workers who are expected to regularly enter such properties must have clearance through DBS. Where lone working is proposed in areas of known risk of attack or intimidation, two-man working is strongly recommended otherwise a risk assessment must be undertaken.													
Operational Control	1. Arrival/Departure: Operatives to notify office / Operations Manager of time of entry and estimated departure from the property, and notify of exit. If duration exceeds estimated departure time then office / Operations Manager shall call Operative. 2. Company Identification: Must be carried by employees and be shown upon arrival that shows accurate photograph, name, company name and contact telephone number. 3. Dogs: Do not enter areas with unleashed dogs unless with permission and supervision of owner. 4. Tool Security: Hand tools and portable power tools shall not be left unattended unless stored in a locked tool box or vehicle. Hand Tools (screwdrivers etc) shall be in secure (e.g. zipped / velcro) pockets. 5. Trip Hazards: Be aware of increased slip and trip hazards from toys, clothes and floor surfaces especially on stairs and landings. 6. Room Entry: Operative should precede client into a room in order not to “corner” a person. 7. House Keeping: After work thoroughly check that work area is clean and vacuumed by the operative and free from sharps (splinters, metal shards, screws) and any other wastes. 8. PPE: Where appropriate wear penetration-resistant gloves and Workwear (RAC- Sharps & Needles).													
Prohibitions / Restrictions	1. Foreseeable Harm: Do not enter property if condition of premises presents foreseeable harm (eg homes / gardens of unfit habitation (wastes, infestation, evidence of drug use, overgrown). Report to Supervisor for instruction. 2. Inappropriate Contact: Operatives shall have no inappropriate physical contact with any non-employee. 3. Vulnerable Residents/Children: At no time shall operatives be left alone with children, elderly or other vulnerable residents.													
Personal / Environment Protective Equipment	Protection Zone		Type		Standard									
	As appropriate to task.													
	Lone workers must carry mobile phones.													
Emergency Preparedness and Response	Personal Defence: If you are threatened, or attacked, by a member of the public, a workplace colleague or animal try to stay as calm as you can - and remember: 1. Think about your body language - don’t point your fingers, clench your fists or make eye contact 2. Don’t shout or raise your voice unnecessarily; 3. Don’t invade the person’s personal space; 4. Be assertive , not aggressive, particularly if the person is drunk. 5. If being attacked by an animal, Do not run. 6. Try not to retaliate; the law permits only a reasonable amount of force to restrain attack. Physical self defence should only be used as a last resort. It limits your options of getting away and will invariably commit you to a fight that you could well lose. Additionally you could be legally liable for assault. 7. Always try to distance yourself from the situation; this may mean you surrendering cash or equipment. 8. Phone your Supervisor and if necessary the Police. Submit an Incident Report Form. 9. An Occupational Health Counselling and Advisory Service exists to offer support to all staff and offers confidential counselling and advice. This service can be of help in many ways, including dealing with the emotional and physical after-effects of assault. Contact the Operations Manager.													

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Liam Sellar	1-1	30 October 2019	Change Point, Post Incident, Lessons Learnt & / or Oct 2022

RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC019 - VEHICLES OPERATING ON SITES									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Strike of Persons, Equipment or Premises by Vehicle	Strike injury										
	Fall from damaged structure										
Contact with Overhead Power Lines	Electrocution; Fire or explosion; Injuries due to shock; Burns										
Vehicles overturning or falling into excavation / embankment	Crushing injury; Strike injury; Entrapment or engulfment										
Destabilisation of load during transport, loading or unloading	Crushing injury; Strike injury; Entrapment or engulfment; Cutting / Slicing injury										
Movement and Transport of Hazardous Substances	Exposure to Harmful Substance; Environmental Pollution (Land / Water)										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	1. Where possible, delivery / collection points shall be on the site boundary / offsite to reduce movements of delivery trucks on site.										
Training / Awareness	1. All drivers will hold a current relevant driving licence, plant operator certificate / CPC Card. 2. Visiting drivers will be briefed on site rules and hazards. 3. Banksman 4. Slinger / Signaller Certificate (if lifting). 5. Spill and Fire Response (if handling hazardous substances)										
Health Standards / Surveillance	1. None specified other than HGV Medical.										
Planning / Preparation	1. Vehicles Suitability: will comply with the current licensing requirements. Vehicles that could fall / roll shall have adequate fall cages and roll bars. All vehicles will be properly maintained, serviced and inspected. 2. Visual Aids: Where practicable, vehicles shall have adequate mirrors, reverse CCTV Cameras and reversing alarms and lights. 3. Vehicle Routes: Planned to avoid danger to pedestrians, contact with buildings, structures, overhead power lines and to be clear of all excavations. 4. Reversing Minimisation: Avoided where possible using one-way systems. 5. Signage and Fencing: Where required and practicable traffic routes clearly signed and fenced off. 6. Pedestrians: Where practicable, designated pedestrian pathways shall be provided. Where an enclosed pedestrian route, or a doorway or staircase, joins a vehicle route there should be an open space of at least one metre from which pedestrians can see along the vehicle route in both directions. Where such a space cannot be provided barriers or rails should be provided to prevent pedestrians walking directly onto the vehicular route. 7. Speed Restrictions: Where necessary, agreed, displayed and enforced. 8. Lighting: Where there is insufficient light around the work area then adequate artificial lighting shall be provided.										
Operational Control	1. Banksman: In addition to CCTV cameras where drivers / plant operators do not have clear visibility a competent banksman shall be appointed and in place. Any at risk area shall be designated an exclusion zone whilst vehicle movements are taking place eg skip collection, pinch points. 2. High Visibility Clothing: Persons operating in the vicinity of moving vehicles shall wear high visibility clothing. 3. High Voltage Overhead Power Lines: Any movement of vehicles in the vicinity of high voltage overhead power lines shall be subject to special risk assessment in consultation with utility provider. 4. Loading and Unloading of Vehicles: Loads will be assessed and the unloading or loading of vehicles planned to ensure that the movement of loads is properly controlled. Loading and unloading will only take place in designated areas and under proper control. Drivers will ensure loads are placed evenly in vehicles and that the vehicle is not overloaded. 5. Hazardous Substances shall be delivered, moved, stored and used as per and the applicable COSHH Assessment.										
Prohibitions / Restrictions	1. Weather: No working in severe weather conditions including rain, fog and snow. 2. Tipping Vehicles: will not move with the body raised.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	Body	High Visibility jackets or vests	Relevant to Work Environment								
Emergency Preparedness and Response	1. First Aid: Adequate First Aiders and First Aid Equipment, including eye wash. Persons injured by vehicle collision or crushing injury should not be moved due to the increased risk of internal or spinal injury. Persons who are struck by moving vehicles should not be moved unless at risk of further harm, but do not place any other person at risk if attempting a rescue. 2. Spillage: Adequate fire and spillage response kits and trained personnel shall be available.										

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RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC20 - WASTE - HANDLING, STORAGE, TRANSFER AND DISPOSAL									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Escape into Environment	Wind Blown Litter										
	Third Party Flytipping / Theft / Fire / Arson										
	Pollution of Surface / Ground Waters and Soil										
	Resource Loss										
Contact with Waste Hazardous to Health – sewage, infestation etc.	Infection; skin sensitization etc.										
At Risk:	Operatives	Other Site Staff	General Public	Environment							
Alternatives (Elimination / Reduction)	1. Waste reduced by good design, specification, quality materials, competent persons, compliant storage, handling & re-use. 2. Segregate on or off site to allow reuse / recycling / recovery eg soil & stones, topsoil, vegetation; concrete, bricks, tiles, ballast; metal; packaging materials (wood, paper, cardboard, plastic).										
Training / Awareness	1. Waste Requirements - Validation of Waste Carriers Licenses & Environment Permits, Completion of Waste Transfer Notes, (2) Manual Handling, Infection and Leptospirosis Awareness – Waste Handlers										
Health Standards / Surveillance	1. Employees are encouraged to undertake courses of immunisation for Hepatitis A, B & C, Tetanus and Polio.										
Planning / Preparation	1. Waste Carriers License: All third party waste carriers validated on Environment Agency Public Register prior to authorisation to use. 2. Waste Disposal: at approved suitable treatment facilities with a valid Environment Permit.										
Operational Control	1. Storage: Waste shall be securely contained in so to avoid it escaping: (a) keep for minimum time (<12 months) (b) check containers for wear; (c) do not overload containers (d) keep skips covered or closed (e) for soils protect from escape of silt (f) for liquids ensure containers are watertight, bund where necessary (g) prevent against theft - stored in secure areas, keep metal out of sight (h) Label containers with suitable contents (i) Stored away from surface water drains (j) Store on concrete hardstanding where possible (k) Waste produced elsewhere moved to a depot shall not be stored there for more than 3 months. (l) Recyclable materials should be segregated onsite unless separated offsite at licensed a material reclamation facility for recycling or recovery. (m) If destined direct for landfill no liquids, sludges, tyres, plaster board, fluorescent tubes, refrigerators, electronic equipment, bulk biodegradable wastes (eg topsoil). 3. Hazardous Wastes (eg oils, fuels, chemicals, asbestos, batteries, pressurised containers eg line markers, fluorescent tubes, older electronic and electrical equipment, contaminated packaging or absorbents) segregated and disposed of as hazardous waste. 4. Inert Materials (silts, dust, aggregates) where there is the possibility of dust particles rising into the atmosphere and causing a public nuisance then the waste is to be dampened down but care taken to not cause surface water runoff or groundwater contamination. Where dampening is not practicable, then protective containment screen(s) should be used. Where storing soil / using cement or cleaning culverts do not allow silts / runoff to enter drain. 5. Carriage: Driver to have a copy of the Waste Carriers License in the vehicle. A suitable method of transport to be used. Do not move waste in open vehicles unless secured with a suitable tarpaulin. 6. Waste Transfer Notes (Consignment Notes for Hazardous waste) to be raised by waste carrier recording (a) Waste description including EWC Code, containment & quantity. Hazard codes for hazardous waste (b) Producer details including SIC Code [eg sewerage cleaning 37000] and Reg 12 Declaration of Conformity to Waste Hierarchy (c) Waste carrier details including waste carriers license number. For hazardous wastes hazard codes and method of treatment. Waste Transfer Note to attend all waste movements. For hazardous waste a Consignee Return shall be received as proof of the correct disposal of the waste. Waste Transfer Notes to be retained for three years minimum. 7. Other associated Risks: Manual handling, Sewage / Contaminated Waters, Sharps and Needles, Vehicles Operating on Sites.										
Prohibitions / Restrictions	1. Burning waste: Waste is never permitted to be burnt. 2. Hygiene: Employees must refrain from smoking, drinking or eating if clothing or hands have been handling waste. Washing facilities with soap and hand creams are provided on site.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	Hand	Gloves – PVC / mechanical abrasion resistant	BS EN 388								
	Footwear	Safety Boots	BS EN 345								
	Ear	Workwear / Hi Vis Jacket	Relevant to Work Environment								
Emergency Preparedness and Response	1. First Aid: Adequate First Aiders and First Aid Equipment, including eye wash. 2. Spillage: Adequate fire and spill response equipment, including drain blockers, available on site.										
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RISK ASSESSMENT AND CONTROL MEASURES



Title: RAC-21 LONE WORKING											
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Drowning	Drowning										
Physical Attack by Persons / Animals	Concussion; Fracture; Cut / . Laceration; Bruising										
Hypothermia / Other Weather Related Ill Health	Hypothermia										
Manual Handling Injuries esp Team Lifting	Muscular Strain; Fracture										
Injuries Caused by Slips, Trips, Falls	Muscular Strain; Fracture										
At Risk:	Operatives	Other Site Staff	General Public	Environment							
Alternatives (Elimination / Reduction)	1. Team working to be used where risk assessments show that Lone Working is a significant risk.										
Training / Awareness	1. The operative must be trained, competent and generally physically fit so that he is capable of working alone in a responsible manner and is unlikely to need the assistance of others.										
Health Standards / Surveillance	2. Employees will be trained in how to manage situations where aggression from other persons or attack by animals is feared.										
	3. First Aid Awareness, including self-treatment situations and Self-Rescue as appropriate. All lone workers are First Aid Appointed Persons.										
Planning / Preparation	1. Prohibited Activities: The following activities are not undertaken alone: Work in confined spaces; Loading and unloading of hazardous substances in volumes greater than 200litres; any work from an unsecured ladder; Lifting operations where a signaller is needed to assist an operator's vision; Excavation work within a live carriageway; Young persons under 18 years working under instruction with hazardous machinery.. 2. Tools and Safety Equipment: The operative is provided with all the necessary tools and safety equipment, and is trained and proficient in their proper use. 3. Vehicle Tracking: Vehicle tracking devices installed to allow the remote detection of vehicles. 4. Work Area: Surroundings of the area where work will take place are not so remote that contact with anyone throughout the day will be unlikely or difficult in emergency. 5. Work Environment: The work is to take place in a relatively safe environment, with no particular history of incidents of violence, assault or verbal abuse. 6. Communications: Mobile phones will be provided. Some sites offer poor reception for cell phones. In these cases alternative arrangements will be made to allow periodic communication with co-workers. (Land line, radio etc)										
Operational Control	1. Informing Prior To Departure: Employees shall inform their co-workers or Operations Manager / office (prior to departure) of where they are going to work, their anticipated arrival on site and their anticipated time of departure. The employee shall also report in at agreed intervals whilst on site. The "call in" intervals will be dependent upon the type and place of work. If contact is not made at the prescribed times then the co-worker or Supervisor will attempt to contact the employee before summoning assistance from another person or the emergency services as appropriate. 2. Materials and Equipment: The weight and bulk of materials and equipment to be used is within the capability of a single operative with or without the use of mechanical assistance where appropriate. Additional persons will be made available when so required. 3. Hazardous Substances: The work will not involve the use of hazardous substances in confined spaces. 4. Work Near Water: When working or walking near deep or fast flowing water employees shall wear a suitable buoyancy aid and will have been trained in its use and how to rescue themselves from the hazard. The buoyancy aid must be such that it will protect the wearer even when they are unconscious in the water.										
Prohibitions / Restrictions	1. Employees have the "Right to Refuse to Work on Safety Grounds": Employees must report unsafe work requirements or unsafe access areas and not place themselves at risk by conducting such tasks / entering such areas.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	As appropriate to task, but mobile phones or other means of contact are compulsory.										
Emergency Preparedness and Response	1. Employees at Risk: Where employees consider themselves to be at risk they shall withdraw from the situation to a place of safety and report the incident to their supervisor and / or the Police. Employees are not expected to work in situations where physical assault or verbal abusive is feared, employees should not engage in physical violence other than in self-defence and should never offer verbal abuse to others. 2. First Aid Kit: Employee shall have access to a basic first aid kit within their vehicle. 3. Missing Persons Procedure: to be established and implemented when required, and tested on a regular basis.										

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RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC22 - OUTDOOR WORK									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Cold Weather	Cold Stress; Hypothermia; Frost Bite; Unconsciousness.										
Hot Weather	Heat Stress; Heat Stroke; Fainting related injuries										
Dehydration	Fatigue.										
Working in the sun	Skin damage including sunburn, blistering, skin ageing, increased risk of skin cancer.										
Working in Wet Conditions	Trench Foot; Hypothermia; Dermatitis.										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	- In hot weather, reschedule work to cooler times of the day. - In cold weather, can work be scheduled to more warm days. - In wet weather, can work be rescheduled to drier days.										
Training / Awareness	- Heat stress - Headache, dizziness, confusion, temper; loss of appetite and nausea; sweating, pale, clammy skin; cramps; breathing difficulty. May result in Heat Stroke - fainting / unconsciousness. - Sun Exposure – See Health. - Cold stress - hypothermia (shivering, tiredness, apathy, disorientation, irrational behaviour and ultimately unconsciousness) and frostbite (pins and needles, paleness, numbness, colour change in skin white to blue to black). - Immersion - Trench Foot Caused by prolonged exposure to near-freezing temperatures in damp, slushy conditions, and can be aggravated by lack of mobility, tight shoes and wet socks.										
Health Standards / Surveillance	Sunburnt skin is damaged skin. A suntan is not a sign of good health. Take particular care if you have: fair or freckled skin that doesn't tan, or goes red or burns before it tans; red or fair hair and light coloured eyes; a large number of moles. Check your skin regularly for any unusual moles or spots. See a doctor promptly if you find anything that is changing in shape, size or colour, itching or bleeding.										
Planning / Preparation	See Alternatives.										
Operational Control	Hot Environments - Wear long sleeve shirts or loose clothing with a close weave. Note that shorts are banned from site and premises. - Take more frequent rest breaks, taking breaks in the shade whenever possible; - If possible, provide shade where work tasks in direct sunlight are undertaken. - Use a high factor sunscreen of at least SPF15 on any exposed skin. - Drink cool water rather than tea, coffee or carbonated drinks frequently in small volumes to compensate for losses due to sweating. An average of 500ml / half a pint every 15 minutes should be taken, and ensure before they start work that they are adequately hydrated. Thirst is not a good indicator of dehydration as if you are thirsty you are already starting to suffer from the effects of dehydration. - If safe to do so, remove personal protective equipment when resting to help encourage heat loss. Cold Environments - Ensure the personal protective equipment issued is appropriate, including adequate warm clothing. Multiple layers are usually more effective than single thicker layers. - Provision of mobile facilities for rewarming and encourage the drinking of warm fluids such as soup or hot chocolate - Introduce more frequent rest breaks in warm areas or out of the wind. Wet Environments - Wear effective personal protective boots including wellington boots and correct wet weather protection.										
Prohibitions / Restrictions	- Work in extreme conditions is prohibited. Contact you Supervisor if conditions become too adverse. - Exposure of arms or legs in hot weather is prohibited. It increases the risk of sunburn and skin cancer, as well as increasing the risk of exposure to oils, cements and other harmful substances.										
Personal / Environment Protective Equipment	Protection Zone	Type	Standard								
	Clothing suitable to the environment worked in (See Operational Control).										
Emergency Preparedness and Response	For victims of frostbite / hypothermia: Gently warm the victim, avoid rubbing, remove constrictions, send to hospital if necessary). For wet persons: Do not remove wet clothing. Place additional clothing on the person until warm, and then replace. Provide warm but not hot sugary drinks. For sunburn: DO NOT APPLY CREAMS. Bath effected area in cold water. Provide plenty of water. Seek medical attention if severe. For Heat Exhaustion: Lay down casualty and raise legs. Give plenty of water and seek urgent medical attention even if they recover quickly. If Heat Stroke: Wrap casualty in cold, wet sheet and call for an ambulance.										
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RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC23 - SITE CONDITIONS – Slips, Trips and Litter (including Flytipping)									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Slips and trips on same level due to materials, equipment, uneven floor surface.	Trips and falls										
	Fractures										
	Cuts, lacerations and bruising										
	Habitat Damage / Litter / Nuisance										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	1. Not Applicable. Following this procedure will implement the safe system of work.										
Training / Awareness	1. Operatives instructed on requirements of good housekeeping via induction course and toolbox talks										
Health Standards / Surveillance	1. None required.										
Planning / Preparation	1. Waste: Adequate arrangements for the storage and disposal of wastes to be made, as per RAC.020 Waste.										
Operational Control	1. Cleanliness: Workplaces kept clean and tidy. 2. Obstructions: Corridors, walkways, working platforms etc. must not be obstructed. 3. Trip Hazards: a) Trip hazards that cannot be moved eg steps, uneven floor surface to be communicated to site operatives and where required to be made safe with adequate barriers, cones, tapes or signs where practicable. b) Leads, hoses and extension cables are to be safely routed. c) Tools and materials must be stored so not to cause a trip hazard or be in a situation where they may fall. Where practicable, store materials horizontally and not vertically to prevent a fall hazard. 4. Slip Hazards: a) Non-slip footwear to be worn. Whilst working safety boots to EN 345 200 joules, appropriate to the work task are worn. b) Water and other liquids must be cleaned up immediately, with any hazardous substances being dealt with per RAC.069. c) Vehicles including cabins and loading compartments to be kept clean and tidy. d) Site must have adequate lighting. Electrical supplies to RAC.017 and temporary artificial light to RAC.035 Portable Electrical Equipment. Artificial light must not cause nuisance to neighbours and if required have appropriate baffles. 5. Waste: rubbish and debris must be removed as work proceeds, and stored securely as per RAC.049 Waste Storage. 6. Unoccupied Sites: should have the provision of signs indicating the main contractor's name and emergency contact numbers (in case roadwork cones / signs are removed / damaged). Skips should be covered and contained within a heras-type fenced compound to discourage flytipping. 7. Theft: Metal materials and scrap metal should be stored in an area away from sight of the general public or removed from site to deter theft.										
Prohibitions / Restrictions	1. See It Sort It: Slip and trip hazards must not be left for others to deal with, but must be dealt with by the person identifying the hazard. 2. Flooded Areas: EG cellars where the floor is hidden by water or other liquid then do not enter the area.										
Personal / Environment Protective Equipment	Protection Zone	Type				Standard					
	Footwear	Safety Boots				BS EN 345					
Adequate waste containers (bags, bins, skips, vehicles) appropriate to the waste created.											
Emergency Preparedness and Response	Flytipping: (the unauthorised tipping of waste by third parties (either known or unknown) on a site). Where sites suffer flytipping the following procedure shall be followed: 1. Where the perpetrators can be identified then record these details. Where practical interview neighbours to determine if any witnesses were made. 2. Report any flytipping to the relevant authority – flytipped domestic waste to the local authority; flytipped commercial / industrial waste to the Environment Agency Pollution Hotline on 0800 807060. 3. Waste shall not be removed from site until it has been inspected by the Supervisor. Flytipped wastes may include letters, reference numbers or other documents that will aid the investigation. Any such evidence shall be retained and provided to the relevant authority. Any flytipped hazardous wastes including refrigerators and tyres should not be touched. The area should be cordoned off awaiting inspection by the Environment Agency. 4. Flytipping on private land is the responsibility of the land / property owner to dispose of. 5. Flytipping can be discouraged by the erection of secure fencing and adequate lighting (though positioned not to cause a nuisance to neighbours).										

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RISK ASSESSMENT AND CONTROL MEASURES



Title:		RAC25 NOISE – Occupational Noise And Public Nuisance									
HAZARDS	HARM	RISK FACTOR (in relation to harm)									
		Severity					Chance with Controls				
		1	2	3	4	5	1	2	3	4	5
Exposure to Noise	Permanent or temporary hearing loss										
	Ringing in ears, leading to disturbance										
	Disturbance of sleep; Prohibition Notice										
At Risk:	Operatives		Other Site Staff		General Public		Environment				
Alternatives (Elimination / Reduction)	1. Low noise producing plant and equipment selected.										
Training / Awareness	1. Employees shall be informed and trained on the likely noise exposure and the risk to hearing; the control measures and how to use them; where and how people can obtain hearing protection and how it is to be used; how to report defects in hearing protection and noise-control equipment; what their duties are; what they should do to minimise the risk; the health surveillance systems.										
Health Standards / Surveillance	1. Health surveillance (hearing checks) shall be provided for all employees who are likely to be regularly exposed to noise above the upper exposure action values, or are at risk for any reason, eg they already suffer from hearing loss or are particularly sensitive to damage. Consultation with the Safety Representative and / or employees shall be undertaken before introducing health surveillance. Pre-employment checks are recommended.										
Planning / Preparation	1. Dampening or Insulation: Plant shall have a Declaration of Conformity, valid CE mark, be provided with instructions and noise levels and for outdoor equipment conform to the Noise Emission in the Environment by Equipment for Use Outdoors Regulations. 2. Vibration Dampeners and Isolators: Must be used. 3. Contained Plant: Consider contained plant within an insulated container isolated from the ground on vibration free mountings. 4. Inspection, Maintenance and Service: According to manufactures instructions. 5. Noise Levels: Shall be measured and recorded. Noise level surveys shall be made at least every two years. Noise monitoring shall be by a competent person. Noise levels shall include periods of start-up, normal operation and shut-down, including idling. Peak levels shall also be recorded. The daily and weekly exposure of employees shall be calculated, and appropriate further actions taken. 6. Notification to Neighbours: (a) For planned works where boundary noise levels are likely to be breached, before starting work on site that may cause a noise nuisance, application under Section 61 of the Control of Pollution Act 1974 [COPA] shall be submitted to appropriate Local Authority for the site or for each work site as necessary, and formal consent obtained. The activity will need a public notice in local papers and through mail drops. (b) For planned works not requiring COPA Section 61 consent always pre-notify the properties that will be potentially disrupted by noise at night. Determine if the temporary relocation of neighbours is required. Inform neighbours of the schedule and progress of works.										
Operational Control	1. Plant Not In Use: Shut down plant when not in use and do not leave it idling. 2. Location of Works: Locate noise generating plant or activities away from the majority of the workforce, but not so to increase nuisance to neighbours. 3. Impact Noises: Avoid metal-on-metal or stone-on-metal impacts eg line skips with wood sheets. 4. Hearing Protections Zones: Where, required will be installed. Hearing protection must be compatible with other items of personal protective equipment. Where hearing protection is worn, a risk assessment must be undertaken to determine if the employee is at risk from other hazards e.g. vehicle reversing alarms or verbal warnings, and appropriate supervision established. 5. Restricted Access: Ensure only people who have to enter hearing protection zones and that they do not stay there longer than needed. 6. Restricted Work Times: Restrict noisy work to certain times of day. Conduct boundary noise monitored at regular intervals to determine where compliance may be breached. Consider installing deflective screening / barriers between the site and neighbour - length of the barrier to be ten times the height otherwise sound will travel around the ends. Openings are to be avoided.										
Prohibitions / Restrictions	1. Responsible Behaviour: Employees are expected to act in a responsible manner at all times and provide an outstanding image of the company's professional conduct. Excessive shouting, swearing, use of radios at excessive volume or any act that could be defined as harassment (of any nature) is a disciplinary offence and will be dealt with as per the Company's Disciplinary Procedure. 2. Noise: at all times shall be minimised. 3. Emergency Works: Where noise at night is unavoidable, immediate neighbours should be notified of the reason that the emergency works were performed.										
Personal / Environment Protective Equipment	Protection Zone	Type				Standard					
	Ear	Ear Muffs				EN352 Part 1					
		Foam Earplugs				EN352 Part 2					
		Helmet Mounted Ear Muffs				EN352 Part 3					
Emergency Preparedness and Response	1. Complaints: If complaints regards noise received then stop work immediately and consult with manager. 2. Tinnitus / hearing loss: Any employee suffering ringing in the ear or hearing loss must report the issue to their manager as soon as possible, who will refer then to the occupational health provider.										

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