The Engineering Alliance Health & Safety Code of Practice

MAY 2015

SOUTH WEST WATER

Stronger together

Health and Safety	Management Framework	FORM REFERENCE NO.
		QHS-MF-002

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INDUCTION, COMPETENCY AND TRAINING

An induction is a statutory requirement for all projects. Regardless of size or type.
The following table sets out the minimum requirements.

	1. Full H_5O Induction	2. H_5O Health & Safety Induction	3. Site Specific Induction
All Tier 1 and Tier 2 staff/ operatives/SWW personnel	✔	✔	✔
Contractors procured direct by Developer services, Rapid Investment Optimisation of Work (RIOW)/Reactive All sub contractors including sub sub/Agency staff/ temporary staff		✔	✔
Visitors/delivery drivers inc statutory inspectors/auditors			✔

Induction 1

H_5O internal procedures as well as Health & Safety induction 2.
Note: This Induction includes Estates Requirements, Alliance Structure.

Induction 2

A face to face Health & Safety Induction is mandatory for all Staff prior to working on an H_5O site. This is to be undertaken by an appointed competent person. The induction can also include the South West Waste water Services induction card where applicable.
Note: It does not include the mandatory Water Hygiene card for clean water sites which will need to be arranged separately.

Induction 3

A site specific induction will be undertaken on every site by the responsible Manager/ Supervisor or Team leader.

Please contact your Health & Safety representative for all Induction delivery dates/times. An induction register shall be kept by each organisation for proof of delivery. Anyone found on site without the required induction will be asked to leave the site immediately.

INDUCTION, COMPETENCY AND TRAINING

COMPETENCY & TRAINING

All persons on H_5O sites shall demonstrate their relevant competency and training evidenced by recognised certification and proven experience. All personnel shall be assessed prior to commencing works on site. Any individuals subject to training on site will be appropriately supervised. Those that fail to meet the required standards shall be subject to re-training or removal until competency is proven.

A well respected acronym for defining Competency is the word:

" S.K.A.T.E." - Skills Knowledge Attitude Training Experience

MANAGEMENT AND SUPERVISION

Leadership

H_5O requires leadership from their management team demonstrating the right behaviours and by setting the right examples. It also recognises that an appropriate level of supervision is essential to providing the platform for exemplary safety performance across all its staff, contractors and suppliers.

Supervisor Qualifications.

To achieve this objective the Alliance will set a minimum academic level of safety qualifications (2 day CITB or equivalent) for any person undertaking site supervision. This is the minimum standard required for a supervisor. Our aim is that all supervisory and managerial staff will achieve a level 2 or equivalent qualification, e.g. the CITB 5 day, SMSTS, IOSH or NEBOSH.

Manager/Supervisor Site Visits.

Site visits will be undertaken by the supervisors/managers based on the complexity and risks of the particular project. They will normally be daily, the actual frequency will however be agreed with line management prior to commencement of the scheme. Note that frequency of visits will increase or decrease on projects as a result of changing circumstances.
Risk based site visits and inspections shall be carried out in accordance with the audit and inspection programme.

Suppliers/Sub-Contractors.

Suppliers are expected to assess the risks on a project by project basis to determine whether the supervisory/managerial project team need to have a higher level safety qualification.
All suppliers are required to create an environment that encourages openness, discussion, debate and the willingness to improve from all levels of the workforce. Attendance at regular safety reviews and updating all with incidents, near misses, hazards or any relevant information is essential, including Significant Incident Reviews for serious incidents.

Audits.

These will be carried out by a Health and Safety Professional, client or a quality assurance team.

MANAGEMENT AND SUPERVISION

Definitions

Site visit – A supervisory or managerial attendance on site to assess that work is progressing in a safe and efficient manner. That all risks are being controlled in accordance with operating procedures and best practice is being deployed where appropriate. Mentoring, consulting and advising employees on their commitment to safe systems of work will also comprise part of the site visit procedure.

Site inspection – A documented formal process that ensures that site conditions and the task are in compliance with the appropriate operating policies and procedures.

Audit - This is a formal assessment to ensure compliance of a particular element of the Alliance's management system

RISK ASSESSMENTS AND METHOD STATEMENTS

Suitable and sufficient Risk Assessments and Method Statements shall be in place to ensure that the safe systems of work and controls are appropriate to the identified risks and protect all those affected by our works.

Risk Assessments and Method Statements (RAMS) are always subject to change and it is everyone's responsibility to continually assess their workplace and react accordingly. Daily face to face briefings to assess the days activities, the risks and control measures are recommended as best practice, taking into account changes that may occur during the day and re-briefing where necessary.

The five key steps to Risk Assessment are:

Site hazards change and must be continually taken into account – this includes local traffic and pedestrian movement, climate, weather, tides, ground conditions and many other variables - all have the potential to change the way the planned work is undertaken and increase risk.

When change takes place work shall stop and be reviewed

All risk assessments and relevant changes must be recorded and correctly communicated back to all site personnel.

Note: this could include a manager, escorted visitor, sub-sub-contractor, agency replacement or even yourself.

H_5O will offer ongoing support and guidance to assist with RAMS and identification of hazards should you require it.

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COMMUNICATIONS (CONSULTATION)

All H_5O suppliers shall contribute to Health and Safety meetings, reviews, initiatives and events.

All Incidents, Accidents, Hazards and Near misses will be reported and lessons learnt shared with H_5O. All staff shall be informed of any relevant information in a manner that engages with the audience.

All innovations/ideas/suggestions that remove or reduce risk will be communicated to H_5O recognising that Zero Harm is a collective aim for all suppliers of South West Water.

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H_5O SUPPLIERS AND CONTRACTORS

The standards within this code of practice are mandatory and apply to all H_5O suppliers.

This includes all contractors, sub contractors and sub-sub contractors. It also includes any agency staff or specialist companies working on an H_5O site.

Our safety statistics have shown that, far too often, incidents have occurred when suppliers choose to use a sub-sub contractor or temporary replacement agency staff who are either not sufficiently informed of the risks on site or trained to H_5O's high minimum standards.

All H_5O Suppliers and contractors will therefore ensure that effective management controls are in place, communicated to all parties, **that these have been understood** and recorded.

HEALTH

In order to provide a clear understanding and commitment towards employees' health and wellbeing at work it is essential to:

- Proactively manage the prevention of ill health in the workplace;
- Promote good health and wellbeing in the workplace;
- Ensure the effective management of occupational health and wellbeing.

All suppliers and partners to H_5O shall ensure they are aware of the occupational health risks, control measures and monitoring measures for those under their employment.

Health Surveillance shall be undertaken for particular exposure levels e.g. Noise, vibration COSHH etc in accordance with the specific regulations.

Employees are encouraged to attend health surveillance appointments and reporting instances of work related ill health and/or disease to their line management at the earliest opportunity.

All employees undertaking work shall receive information about occupational health hazards and any potential health effects associated with that work.

Where the potential for adverse health effects has been identified through the risk assessment process employees shall receive instructions and sufficient protective controls to eliminate or reduce that risk.

Respiratory Protective Equipment (RPE) face fit testing should be conducted by a competent person. The person who carries out the face fit test shall be appropriately trained, qualified and experienced, and is to be provided with appropriate information to undertake each particular task for each individual.

Potential exposure to health related risks could include, but not be limited to:

- Hand arm/full body vibration
- Noise
- Skin disorders
- Respiratory sensitizers (respiratory disease and occupational asthma)
- Respirable Crystalline Silica
- Chronic Obstructive Pulmonary Disease
- Asbestos
- Musculoskeletal disorders
- Vision damage
- Repetitive strain injury (carpal tunnel syndrome)
- Lead
- Hazardous substances

COSHH CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS

All H_5O partners and suppliers shall carry out a COSHH Risk assessment on their use of chemicals.

Identify the hazards

- Identify which substances are harmful by reading the product labels and safety data sheets (SDS)
- Remember to think about harmful substances produced by your processes, such as cutting or grinding

Decide who might be harmed and how

- How might workers be exposed? Think about the route into the body (whether the substance can be breathed in, get onto or through the skin or can even be swallowed) and the effects of exposure by each of these routes
- Think of how often people work with the substance and for how long
- Think about anyone else who could be exposed
- Don't forget maintenance workers, contractors and other visitors or members of the public who could be exposed
- Also think about people who could be exposed accidentally, e.g. while cleaning, or what happens if controls fail

A COSHH assessment concentrates on the hazards and risks from hazardous substances in your workplace. Health risks are not limited to substances labelled as 'hazardous' as listed below. Some harmful substances can be produced by the process you use; e.g. wood dust from sanding, or silica dust from cutting.

Choosing control measures

In order of priority:

1. Eliminate the use of a harmful product or substance and use a safer one.
2. Use a safer form of the product; e.g. paste rather than powder.
3. Change the process to emit less of the substance.
4. Enclose the process so that the product does not escape.
5. Extract emissions of the substance near the source.
6. Have as few workers in harm's way as possible.
7. Provide personal protective equipment (PPE) such as gloves, coveralls and a Respirator. PPE must fit the wearer.
8. If your control measures include 5, 6 and 7, make sure they all work together.

WELFARE

You will provide welfare for all those working under your control (including sub-contractors) in compliance with the Construction Design and Management Regulations.

This will include:

• Adequate and suitable toilet facilities for all genders	
• Washing facilities which will be either a supply of warm water and soap or hand cleanser.	
• Provision of clean drinking water	
• Separate changing facilities for men/ women	
• Drying Facilities	
• Rest rooms and rest areas equipped with tables and seating and with facilities to prepare and eat heated meals and boil water.	
• Adequate first aid facilities	

WELFARE

Any welfare accommodation provided, will be of a good standard and meet the requirements of the current edition of the standard ''Fire prevention on Construction sites";

The use of existing SWW facilities requires permission from the local SWW Manager. Anyone found not to maintain the facilities to a clean and hygienic standard will be asked to vacate the site and provide their own facilities.

You will ensure that all your Welfare facilities are clean and well provided with appropriate materials such as toilet paper, soap etc and that this is maintained throughout the scheme/task.

Non notifiable projects

For transient sites/short duration works you will provide the following as a minimum:

- Location of the nearest public conveniences
- Drinking Water container (vehicle sinks preferred)
- Antiseptic Hand wipes
- Cleaning gel
- First Aid Kit

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INCIDENT REPORTING

H_5O places great emphasis on the importance of reporting incidents. This is to ensure continued improvement of Health and Safety and prevention of accidents.

Work places never stay the same, materials and equipment will enter and leave site on a daily basis, therefore your procedures will need to change due to new hazards occurring.

Your risk assessments will need to be reviewed regularly due to any significant changes (including weather).

Incident definitions

ACCIDENT – An unplanned and undesirable incident that leads to an injury, damage or loss

OCCUPATIONAL HEALTH INCIDENT – A Health problem suffered by an employee directly attributable to current or previous occupation.

NEAR MISS – An unplanned unforeseen incident that could have led to an injury, damage or loss

HAZARD – A situation or issue that has the potential to cause harm

MEMBER OF THE PUBLIC (MOP) – An incident, injury, disease, exposure to an hazardous substance, or affecting the health of a member of the public.

"Every Incident reported is an opportunity to prevent accidents occurring, learn lessons and prevent a similar incident or injury happening again"

All incidents whether reportable or not, must be reported immediately through your internal company procedures. All Incidents on SWW sites require an S1 report form to be submitted within 24 hrs.

All High severity incidents shall be reported via the H_5O helpline as soon as reasonably practicable.

Where any notifiable accident is referred to the HSE under the RIDDOR regulations, a copy of the statutory report must be provided to H_5O and SWW's H&S and Security team.

0800 121 4444

H_5O High Severity Incident Hotline

YOUNG OR INEXPERIENCED PERSONS

Young or inexperienced persons will be new to the workplace and, in some cases, will be facing unfamiliar risks from the job they will be doing and from their surroundings. They will need instruction, training and supervision to enable them to work without putting themselves or other people at risk.

Young people or inexperienced persons will need more supervision than experienced personnel. Dedicated supervision and mentoring will help you get a clear idea of the person's capabilities, progress and the effectiveness of their training.

All personnel under your control on site must be over 16 years of age.

Young persons (Under 18 years old) will only be permitted on site if:-

- It is necessary for their training.
- They are fully supervised at all times by a competent person
- A full individual specific risk assessment has been undertaken, briefed, understood and recorded
- The risk is reduced to the lowest level reasonably practical.

No person under the age of 18 will be permitted to operate any item of plant or equipment covered by the Construction Plant Competence Scheme (CPCS).

LONE WORKING

An employee or agency appointee who works on their own whilst undertaking a work related task and who does not have regular formal contact with a colleague or supervisor or is not in a place where there are other people within easy contact is classified as a lone worker.

This can apply to someone working late in an office, laboratory or other location as well as operators on a large site where other people may be sited, but there is no formal and regular contact.

Lone working specifically excludes: -

- Driving to or from your place of work or site to site journeys
- Travel on public transport that is work related
- Working from home

Use the Lone Worker Decision Tree (Appendix 1) to assist you in making the judgement as to whether your employees are a lone workers.

Where possible lone working is to be avoided and shall NOT be undertaken where a significant risk is identified. The definition of significant risk shall be determined by a risk assessment however if it doesn't feel right it probably isn't and therefore every support should be given to respect the lone workers wishes should they request to be accompanied.

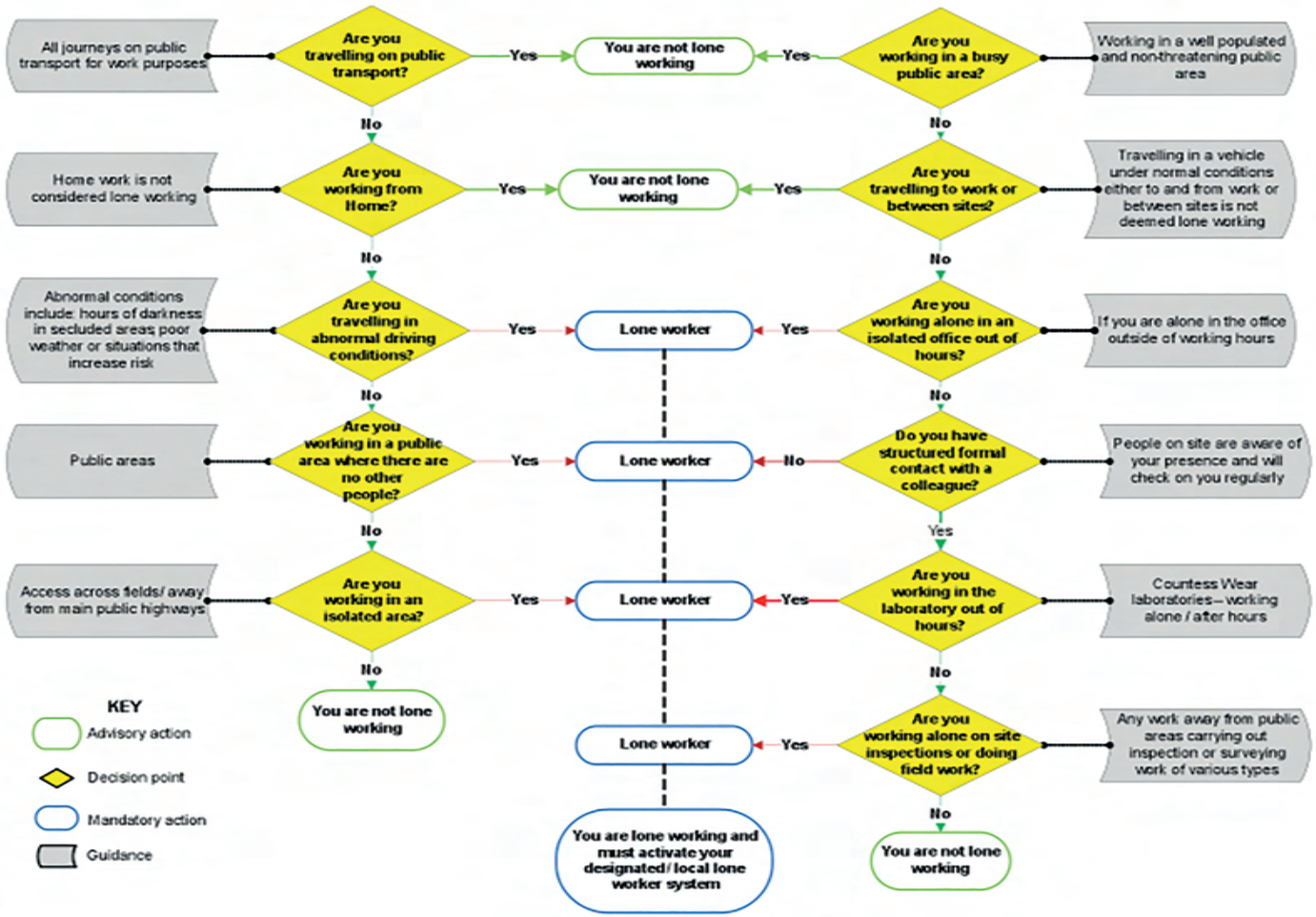
Where lone working is to be undertaken all suppliers shall:

- Identify all tasks which involve lone working.
- Consider the risks associated with these tasks.
- Review the control measures available to limit the risks.
- Implement suitable control measures and safe systems of work
- Prepare and record all procedures and brief to all those affected

The use of lone working "Call in /Call out" or mobile technology is recommended with rapid response procedures for alarms being raised or any failures in calling back to an agreed time-frame.

All staff shall be trained on lone working procedures.

Appendix 1 - Lone Working Decision Tree



DRUGS, ALCOHOL & SMOKING

H_5O recognises that the likelihood that an incident will occur is significantly increased if any employees are under the influence of drugs or alcohol.

Due cause Drug & Alcohol testing testing will be undertaken by those companies who have the capability, and random testing will be undertaken at the discretion of South West Water/H_5O.

Where random testing is planned this will include a wide variation of roles

H_5O strictly prohibits:	
Reporting for work under the influence of alcohol at any level. Being in possession of, or consuming alcohol during working hours.	
Reporting for work under the influence of illegal drugs or solvents. Being in possession of illegal drugs or solvents during working hours.	
Reporting for work having taken prescribed drugs that may affect fitness for work without notifying the relevant line manager	
South West Water has a no smoking policy on all their sites unless there is a company designated smoking area, Note: this includes all E cigarettes and vaporisers. For onsite works, e.g. fields/highway that are not on SWW land, all risks shall be assessed and suitable designated areas be put in place to prevent the risk of fire. All cigarettes butts/ends/ash should be extinguished, contained and removed from site. Smoking in company vehicles is not permitted.	

PPE

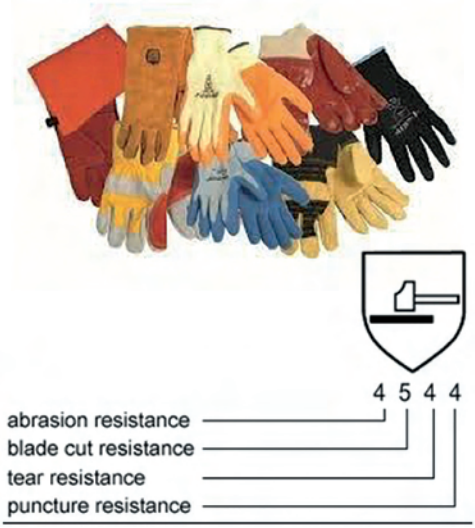
Individual site rules, specific operations, tasks and manufacturers guidelines may require further PPE than the Minimum.

All work activities should be risk assessed prior to commencement.

The H_5O minimum standard for PPE is:

Safety helmets (Hardhats) must be worn at all times on any construction site (EN397 minimum standard) or any other SWW site where head protection is Mandatory Note: Please check the manufacturer's expiry dates on all hard hats and ensure they are in good condition prior to use.	
Hi-Viz jackets or vests are mandatory on all sites. (EN471 class 3 minimum standard) When working on the highway both private or public, Long sleeve waistcoats or coats must be worn at all times (this applies to all speed categories) Note: Where long sleeves present an increased risk, three quarter lengths can be worn. This requirement must be included in your site specific risk assessment and abide with any approved code of practice.	
Safety boots (Toe and mid sole protection) at all times on any site.	

PPE

Gloves for the intended operation, risk assessed prior to commencement of any task. How do you know that you have the right glove for the work activity? You will find a symbol and numbers on all gloves (see diagram). The higher the number (1 – 5 blade cut and 1 -4 for the others) the more protection is given. Note: 'Puncture resistance' does not apply to activities such as handling syringes/ hypodermic needles. Specialist gloves, equipment and training are required for these activities.	
Long trousers and a minimum of short sleeved shirts at all times on any site. Note: See page 18 for when Fire retardant trousers and tops are mandatory. Shorts and/or hi-viz with no shirt underneath is not acceptable	
Safety Eyewear (EN166 Grade F) at all times on any site. Increased protection may be required for task specific activities e.g. welding Note: In rare circumstances where safety eyewear increases greater risk, details will need to be provided in a written risk assessment and signed and approved by a line manager.	

PPE

Fire retardant overalls or Trousers and long sleeve top to EN470-1 &EN531? Must be worn where there is a risk of flame or sparks igniting clothing. This includes all excavation works where person(s) are physically present within the excavation,(i.e.: not confined/protected within an excavator) This requirement will include wet weather clothing	
Gas monitors are an integral part of PPE and must be worn on all SWW waste sites. For clean water sites always check with the SWW Operator or project manager to confirm the requirements prior to attendance. When risk assessed the shared use of Gas Monitors may be permitted in areas of low risk. Training shall be given on the use of the monitors, exposure limits and evacuation procedures when an alarm sounds. Note: There is always a risk of presence of Hazardous gases in any area on site and each site/area should be risk assessed prior to entry. Certain areas such as service reservoirs, pressing rooms, confined spaces etc will require detailed Risk Assessments and Method Statements	

PPE

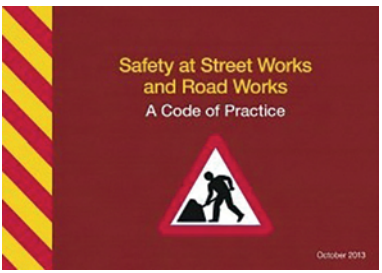
RPE (Respiratory Face Masks) must be appropriate to the task in hand. There are many types of mask available that will offer different levels of protection. Your Risk Assessment will identify the level required for the task at hand Note: RPE face-fit testing shall be conducted by a competent person. The person who carries out the fit test will be appropriately trained, qualified and experienced, and is to be provided with appropriate information to undertake each particular task for each individual.	
Hearing protection shall be chosen, taking into account the levels of noise the wearer will be exposed to, and the strengths and limitations of each type. It must fit and be comfortable for the user.	

SIGNING, LIGHTING, GUARDING

All work activities will be risk assessed prior to commencement to ensure adequate measures are in place to protect all employees, contractors, visitors and members of the public.

When working on a public carriageway, footway or footpath all works are to be planned in accordance with the safety at street works and Road Works code of practice.

Note: When working on roads with speeds over 40mph specialist Traffic Management companies will be required to set up the site to Chapter 8 New Roads and Street Works Act.



When setting up site on a public carriageway, footway or footpath a trained Street works accredited (Street Work Qualifications Register SWQR) person must be present to ensure compliance to the safety at street works and road works code of practice.
All signs are to be placed in sequence as per pages 26-27.

Note: When working on roads with speeds over 40mph only those trained to Lantra 12d are only permitted to set up the site.

All open excavations including during excavating and backfilling require appropriate protection to prevent falls from height.
All sites must be risk assessed prior to commencement of works to determine the appropriate type of barrier.

Warning lights must be placed on barriers on roads with speeds of 40mph or above or when the site conditions necessitate due to poor visibility: e.g. Foggy Weather

SITE SECURITY

All H_5O suppliers are required to follow South West Water (SWW) security standards policy when attending any SWW site. All sites (private or public) should be risk assessed to determine the appropriate security measures, this will depend on numerous factors e.g. location, type of task, historic issues, severity of risk, weather.

The H_5O minimum standard for site Security is:

- Prevent all unauthorised access into any working area at all times.
- All ignition keys must be removed from unattended vehicles. Vehicles not being used shall be locked at all times.
- For larger CDM notifiable schemes consideration should be given to the use of CCTV or security patrols
- Where works in high risk areas are identified such as pubs, clubs, schools, sport arenas, events etc additional control measures shall be implemented. e.g. fencing double clipped, the covering or backfilling of excavations, regular checks, audits, out of hours cover.

PLANT AND VEHICLE MOVEMENT

There is a need to identify all items of plant and vehicles where there is a risk of contact with people. Each site requires a risk assessment detailing the plant in use, the inherent risks and who may be affected. A hierarchy of control should be applied when considering site set up.

AVOID

Avoid the need for people to be within the immediate proximity of moving plant and vehicles though the design, planning and sequencing of the works and transport routes. Eliminate the need for a plant vehicle marshal (PVM).

PREVENT

Locate pedestrian routes out of areas of plant/vehicle operations.

Define Safe routes for all vehicle and plant operations on site.

Locate PVM's in a designated place of safety.

Utilise Technology such as reversing alarms and cameras to identify when people are encroaching.

MITIGATE

Develop and implement a plant and vehicle movement plan

Nominate plant and vehicle marshals to physically control movements on site.

Ensure the condition of all plant and vehicles is sufficient to enable safe operations.

Establish exclusion zones and where appropriate controlled access zones.

Provide warning signs, traffic control methods e.g. passing points, one way systems, turning areas, reduced speed limits, adequate lighting.

PLANT AND VEHICLE MOVEMENT

The use of mobile phones, music headphones or earphones is prohibited whilst operating or marshalling plant and vehicles	 
All staff including visitors, contractors and sub-contractors, must be inducted and advised of all plant and vehicle requirements/movements and follow the instructions given.	
H_5O recommends reverse parking as best practice.	

EMERGENCY PROCEDURES AND FIRE PREVENTION

All sites require emergency and fire procedures to be risk assessed, with the emphasis on eliminating or reducing risk. An emergency and fire prevention plan shall be in place prior to commencement of the works.

These plans must be continually re-assessed to account for any site changes, e.g. new personnel, weather, plant and equipment. This is to establish the contingency arrangements for accidents, fire, gas leaks, and environmental pollution, summoning the emergency services, evacuation and rescue.

These procedures must be communicated to all personnel and will be displayed on all sites where appropriate.

Emergency equipment should be identified on the plan and should be provided in adequate quantities in accordance with site specific risk assessment.

A hot works permit will be required where the very nature of the activity creates a significant fire risk.

H_5O minimum requirements for all sites include:

South West Water has a no smoking policy on all their sites unless there is a company designated smoking area, Note: this includes all E cigarettes and vaporisers. For onsite works, e.g. fields/highway, that are not on SWW land, all risks shall be assessed and suitable designated areas shall be established to prevent the risk of fire. All cigarettes butts/ends/ash shall be extinguished, contained and removed from site. Smoking in company vehicles is not permitted.	
Emergency routes and exits MUST be kept clear at all times	

EMERGENCY PROCEDURES AND FIRE PREVENTION

All Fire Marshalls/wardens must be suitably trained and updated with all processes including any changes in procedure	
The route to the nearest A&E hospital MUST be included in site documentation/ displayed on site.	
The deliberate burning of material is prohibited on all sites	

FIRST AID

The minimum number of first aiders on site at any time is one.

The number of first aiders will however be determined by risk assessment prior to commencement of the work.

First Aid boxes must be available at all times and be re-stocked when necessary.

Note: The type of task being undertaken may determine what is required in the first aid box; this should form part of your risk assessment.

For larger schemes with greater numbers of people, notices should be displayed at prominent locations identifying first aid arrangements. All persons on site must be aware of the first aid arrangements.

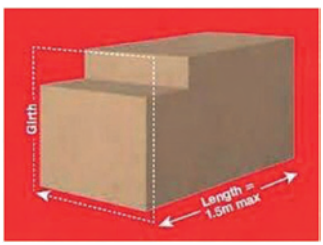
Best Practice - All First aiders on site must have an easy way of visibly indentifying them; e.g. First aid stickers on hard hats

Best practice - All staff with a medical condition should carry the details/ medication information for emergency situations.

MANUAL HANDLING

Manual handling causes many injuries each year. The definition of manual handling includes "lifting, carrying, putting down, pushing or pulling, transporting or supporting a load by hand or bodily force". All staff involved with manual handling shall be adequately trained.

All manual hazards will be risk assessed prior to commencement of the activity undertaken. The identification of hazards involves 4 key factors listed below. A simple mnemonic; the word "TILE" may help you remember them.

Task Analysis of the nature of handling operation and identification of high risk activities	Examples of the task include: Twisting, Stooping, Reaching upwards, long carrying distances, Strenuous pushing or pulling	
Individual capability Consideration of the physical characteristics of the person doing the handling operation and their ability in terms of knowledge and skills.	Three main aspects to considering an individual's ability to carry manual handling safely: 1. Does the task require unusual capabilities; e.g. strength or height? 2. Does it pose a risk to those with a health problem or expectant mothers? 3. Does it require special training?	
Load An analysis, including weight and measurements of the object being handled	Examples of the load include: • Weight • Size • Shape • Resistance to movement • Rigidity (or lack of) • Presence or absence of handles • Surface texture of the item	

MANUAL HANDLING

Environment Analysis of the immediate physical surroundings within which the handling operation takes place	Examples of the environment include: • Condition of floors e.g. slippery, uneven etc • Levels such as ramps, steps, ladders • Temperature – Humidity, cold • Weather, strong winds • Lighting conditions- variations between light and shade	

SLIPS, TRIPS AND FALLS

Every year, many injuries occur through slips, trips and falls. Most of these injuries are easily preventable with good housekeeping and working practices.

The minimum H_5O standards include the following:

All working areas to be kept in a clean and tidy condition. All rubbish must be cleared and stored in an appropriate place prior to removal	
All openings, chambers and manholes are to be adequately covered when access is not required. Barriers must be erected when access is required but the opening is left unattended.	
Edge protection is mandatory for all excavations.	
Adequate levels of lighting must be maintained. e.g. Bulbs/tubes replaced. Lighting requirements must be risk assessed taking into consideration changing conditions such as darker mornings/ evenings and environment to which you are working. Light meters may need to be necessary to determine the requirements.	
Electrical trailing leads, over ground pipes/ hoses must be positioned safely and away from works/access/public areas . Best Practice is to raise any items above ground level where feasible.	

WORKING AT HEIGHT

Falls from height cause the majority of fatalities in the construction industry. A safe system of work is essential when working at height.

H_5O have implemented the following fall prevention hierarchy.

1. Avoid working at height where possible, e.g. by design, innovative solutions	
2. Stop People falling by using safe working platforms, scaffolding, MEWPS, guard rails, edge protection.	
3. Provide equipment that will restrain or arrest falls such as netting, airbags, harnesses, lanyards	

Preventing falling objects

Preventing falling objects can easily be avoided with some simple measures. As a minimum these include:

- Not stacking materials near edges, and particularly unprotected edges.
- Close boarding of working platforms to prevent gaps between scaffold boards or alternatively place sheeting over the boards.
- Avoid carrying materials up and down ladders: e.g. by using chutes to move materials
- Use physical safeguards such as toe boards, brick guards, excavation edge protection
- Use covered walkways/netting shielding where risk remains

SAFE DIGGING

All excavating, in either private or public land, requires a risk assessment prior to commencement. The excavating person(s) must be adequately trained and competent for the task being undertaken.

The minimum safety requirements will address the following aspects :

Risk of Utility damage

Avoid:

Eliminate the risk by design – do we need to excavate in a location where there is risk?

Is ground penetration radar required to confirm locations?

Prevent:

Can the supply/utility service be isolated?

The use of Vacuum excavators or air picks should be considered especially in areas of high risk such as sites containing:

- High voltage cables
- High pressure gas mains
- Multiple service crossings.

Do not use any hand held power tool or mechanical excavation within 500mm of a live service, or within the distance stated by the Statutory Authority (whichever is greater).

Always use a banks man when mechanically excavating

Mitigate:

Ensure utility drawings (electric, gas, water, Cable TV, BT) are available on site and the team understand the colour coding.

Carry out observational checks for existing scars/trench lines and covers.

- Mark the line of services with spray paint
- Use calibrated survey detection equipment before and at regular intervals during excavation
- Wear the appropriate PPE at all times
- Never dig directly above a known service
- Where a service has been identified as being encased in concrete all works MUST stop until a safe system of work is in place.

Training in the use of Cat & Genny (Cable locating equipment) is mandatory for all staff undertaking digging/excavating.

SAFE DIGGING

All exposed services will be supported in accordance with Statutory Undertakers requirements. Services are not to be used for access/egress from any excavation. Any damage to any service is to be reported to the Statutory Undertaker immediately and through the H_5O reporting procedures.

All work carried out in the vicinity of overhead cables will be undertaken in accordance with GS6 Guidance and shall be subject to a specific risk assessment and method statement. Barriers and/or goal posts will be established to limit access and work in the vicinity of overhead electricity cables; these may need to be established after liaison with the appropriate Statutory Undertaker.

For transient teams with high risk activities such as grab lorries drivers/operators shall be given specific GS6 training.

Excavations are to be adequately supported or battered to a safe angle of repose where there is a risk of collapse.

Where excavations are deeper than 1.2m (less if there are other factors such as ground water, surcharge, adjacent structures, poor ground, etc) they shall be battered back or supported and a permit must be completed by an appointed person.

Where any excavation is deeper than 2m this will be deemed to be a deep excavation, and subject to a temporary works design. Any ground support systems will need to be designed appropriately by a suitably qualified person.

Where there is a risk of a person falling into an excavation, or an excavation of any depth is in a public area, secure rigid barriers are to be installed (minimum height 950mm with no gaps exceeding 470mm). Where there is a risk of materials or objects falling onto persons in an excavation, suitable barriers are to be installed.

Where plant or vehicles could fall into excavations appropriate controls are to be taken such as the provision of stop blocks.

SAFE DIGGING

Spoil and materials are to be deposited a safe distance from the edges of excavations/ trenches.

An easy way to remember the safe distance for materials/spoil is by using the depth as the same measurement; e.g. 1mtr deep requires spoil to be stored 1mtr away.

Excavations may need to be considered a confined space in certain situations. Any risk assessment for an excavation must consider the risks from gases, entrapment etc and identify how such hazards are controlled.

A competent person will make statutory inspections/examinations:

- Before the commencement of each shift
- After any change in anticipated conditions likely to have changed the conditions (e.g. heavy rain).
- After a collapse or event likely to have affected the stability of the excavation

All inspections/examinations are to be recorded and these records kept on site.

PLANT & EQUIPMENT

All plant and equipment used on site will be:

- In good working order and be suitable for the purpose and the environment in which it is to be used.
- Maintained in good condition with safety devices (guards, reversing alarms, flashing beacons, correct mirrors etc.) fitted and in good order.
- Regularly inspected with appropriate records, complying with the relevant statutory requirements. All records will be kept on site.

Method statements will include controls to manage the risk arising from the use of the plant and equipment. The risks you need to think about include the plant positioning, movements, installation/removal and maintenance.

Drivers/Operators covered by the Construction Plant Competence Scheme (CPCS), National Plant Operators Registration Scheme (NPORS) or any other approved bodies) will hold the appropriate current cards with them on site.

Some Internal training is permissible for specific plant items where certificated and competence is demonstrated and when legally permissible.

No person, other than the driver, is to ride on power driven vehicles except where seating and restraint methods are specially provided for the carriage of passengers.

Only trained competent persons are to operate power tools

All mobile plant shall to be fitted with a protective cab, or other rollover protection system. Seat belts will be fitted, in good order and are to be worn at all times whilst the plant is being used.

PLANT & EQUIPMENT

Plant and equipment on any site shall be secure at all times	
All plant shall be inspected before use, visually on a daily basis and documented weekly. Any defects must be reported and the item quarantined until the defect is rectified. All plant and equipment must be certified/ calibrated for use.	

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		QHS-MF-002

PARKING AND DRIVING

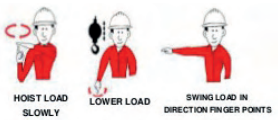
- Parking must only be in area where it is a legal and safe. When planning on-site parking you will segregate pedestrians from vehicles and plant.
- Parking is not permitted in front of any building access or in a manner which prevents the safe movement of plant.
- Drivers shall ensure that vehicles in their control are correctly maintained, in a legal roadworthy condition and safe to use.
- All drivers must be licensed for the vehicle they are driving on both public and private land
- All mobile plant and vehicles reversing on site must be under the control of a suitably trained vehicle marshal/banks man unless you have planned routes and/or have an installed suitably robust safe system of work.
- No mobile phones or devices, headphones or earphones are to be used whilst driving.
- Reverse parking is recommended as best practice

- Fatigue limits should be considered in your operations including the commute to and from the place of work.
- Overnight accommodation provision and the use of conference calls are encouraged to reduce unnecessary travel. Drivers must take regular breaks to avoid fatigue and tiredness.
- Drivers must ensure that they are medically fit to drive and should have regular eye tests.

LIFTING

Where works involve lifting operations you must:

- Appoint a competent trained person to plan all lifting operations.
- Appoint a competent lift supervisor who shall be present throughout and to supervise the lifting operation.
- Ensure all lifting Operations are in accordance with BS7121

The Appointed person, the lift Supervisor the operator, slingers and signallers will all have the appropriate and valid Construction Plan Competence Scheme (CPCS) card or demonstrate equivalent training/competence. All such cards are to be available for inspection at any time.	
All lifting operations will be planned with consideration of ground conditions and any restriction in the environment; e.g. overhead and underground services, weather, close proximity to buildings, exclusion zones, roads and railway lines, water courses, other vehicles and plant. These arrangements will be detailed in a lifting plan.	
All signallers are to be safely positioned to direct, (by suitable communication - i.e. hand signal or radio), the raising, slewing and settling down of all loads. All Slingers/Signallers are to wear distinctive high visibility clothing and use industry approved signals.	
All lifting equipment and accessories shall have current certification available for inspection, including thorough examination and test records.	

LIFTING

When lifting large items that are susceptible to the wind, e.g. shutters, the upper safe wind speed limit is to be established and procedures in place to cease operation should the limit be approached or reached. An anemometer or similar is to be available to measure this.	
Cranes to lift people will only be acceptable if it is not practical to use safer alternatives; e.g. purpose designed equipment such as mobile elevated work platforms. A purpose designed man carrying basket shall be used. The operative(s) are to wear full body harnesses and be secured within the carrier. The crane is to be fitted with a free fall capability lock out and other appropriate devices such as a hoisting limiter, lowering limiter, rated capacity indication and rate capacity limiter. The crane and carrier are to be inspected every day by a competent person, with a thorough examination every 6 months.	
All excavators are to have: • A weekly recorded inspection • A twelve monthly recorded thorough examination.	

MANUAL LIFTING

All works shall eliminate the need for manual lifting where reasonably practicable. Where it is not possible to eliminate manual handling, you are to give consideration to partial mechanisation or purchasing lighter weight materials where possible.	See manual handling pages 27-28

ELECTRICITY

- All work associated with an electrical system will be undertaken in strict accordance with the Electricity at Work Regulation 1989 and the current edition of the IET Wiring Regulations
- All electrical installations and alterations are to be undertaken by competent electricians and are to be inspected, tested, recorded prior to use and being made available.
- With the exception of Extra Low Voltage systems (less than 50V AC or 120V DC) you will only undertake work on electrical equipment having isolated the supply under an appropriate 'Permit to Work'.

All electrical installation and equipment will be inspected and tested with the following minimum frequencies:-

Temporary Accommodation (cabins)

Supply Board > Cabin	3 months
Cabin internal wiring	12 months
Portable Equipment	12 months

Site Supplies Supply Board

MDU
3 months

Fixed Distribution Cabling	3 months
110v Tools, Lighting, etc	3 months
230v Tools, Lighting, etc	1 month

110 volt portable tools and lighting must be used on site.

Where equipment requires a voltage greater than 110 volts then you will risk assess the issues and put in place additional protective measures (e.g. monitors, earth systems and circuit breakers).

Cables will be routed in a safe manner at all times on sites.

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CONFINED SPACES

A confined space is a place which is substantially enclosed (though not always entirely), and where serious injury can occur from hazardous substances or conditions within the space or nearby (e.g. lack of oxygen).

A suitable and sufficient assessment of the risks must be undertaken for all work activities to decide what measures are necessary for safety (under the Management of Health and Safety at Work Regulations 1999, regulation 3). For work in confined spaces this means identifying the hazards present, assessing the risks and determining what precautions to take. In most cases the assessment will include consideration of:

1. The task

2. The working environment

3. Working materials and tools

4. The suitability of those carrying out the task

5. Arrangements for emergency rescue.

If your assessment identifies risks of serious injury from work in confined spaces, such as the dangers highlighted above, the Confined Spaces Regulations 1997 apply.

These regulations contain the following key duties:

- Avoid entry to confined spaces, e.g. by doing the work from outside
- If entry to a confined space is unavoidable, provide a safe system of work
- Put in place adequate emergency arrangements before the work starts.

Make sure that the safe system of work, including the precautions identified, is developed and put into practice. Everyone involved will need to be confined space trained, medically fit and instructed to make sure they know what to do and how to do it safely. Rehearsing critical activities should be considered prior to entry.

When your staff are working in a confined space, think about the following:

- How will you know they are okay and haven't been overcome by fumes?
- How will you get them out if they are overcome? (It is not enough to rely on the emergency services).

The law

Confined Spaces Regulations 1997. Other legislation may apply, depending on where the confined space is situated or on the task being carried out, for example:

- Confined spaces within machinery
- Provision and Use of Work Equipment Regulations 1998 (PUWER)
- Workplace (Health, Safety and Welfare) Regulations 1992
- Personal Protective Equipment Regulations 2002
- Personal Protective Equipment at Work Regulations 1992

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CONFINED SPACES

Gas monitors will need to be capable of detecting the relevant potential hazardous atmosphere and be calibrated, with a current calibration certificate. Gas monitors should be subjected to regular 'Bump test' as stipulated by the manufacturer.

You will ensure that all personnel using the gas monitor are to be familiar with the device being used.

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DEMOLITIONS

Demolition will only be undertaken by contractors who are members of the National Federation of Demolition Contractors (NFDC) .

Employees, (operatives and supervisors) are to hold relevant certification in the scheme for the Certificate of competence Demolition Operatives (CCDO).

Specific Risk assessments and a detailed safe system of work are to be prepared addressing all risks including premature collapse due to weakening or overloading of the structure, Utility service protection/isolation, falling objects, dust, structures in close proximity, removal of asbestos or other health hazards.

WORKING OVER WATER

Where your works involve activities on, adjacent to, or over water, slurry or chemicals, you shall plan and establish controls that eliminate the risk of falls of person(s) into water or other liquids. Alternatively you shall ensure suitable edge protection and working platforms are available.

Dependent on the risk, suitable emergency procedures are to be made available for example:

- **Means of raising the alarm,**
- **Rescue boat**
- **Buoyancy aids**
- **Grab ropes and lines.**

All persons at risk of falling into water, or other liquids, are to wear life jackets. The minimum standard of life jackets is 150N in accordance with EN396
Note: Personal requirements should be assessed with the standard increased (e.g. to 275N) where heavy weight clothing is being worn and/or tools are being carried.

All equipment is to be maintained and inspected on a regular basis. Where a safety boat is maintained, its engine shall be started twice daily and its fuel tank kept full.

Note: that aerated water (i.e. anything with bubbles in it) will be less dense than normal water (and so the floatation received from the fluid will be much reduced). An individual falling into such a liquid will possibly sink even if wearing a life jacket. When working in these conditions additional controls and rescue methods shall be required.

ACCESS AND EGRESS

A common cause of accidents is unsafe means of access.
Everyone has a responsibility to ensure that all access areas within the workplace are kept clear from obstructions, and that items, equipment, cavities or spillages do not interfere with free and safe movement around the site

Ensure your work sites have safe access and egress routes both in, out and within the sites. Where possible pedestrians and vehicles shall be segregated, routes well lit and appropriate signage and guarding shall be in place.

The minimum requirement is:

- All Guards, handrails and toe boards shall be maintained and kept in good condition
- Where ladder access is necessary; that it is sound, securely tied, safe and appropriate for use
- Emergency equipment, i.e. fire extinguishers, fire exit/doors, lifebelts etc, are kept free from obstruction at all times
- Gangways, corridors and exits in offices and workshops are kept clear to allow free and safe passage
- Mobile plant and fixed access steps, including handholds, are maintained and in good condition
- Immediately report any Defects to your line manager

Many sites will have shared access controlled by other contractors or by SWW. Where this happens you must communicate and cooperate with these parties to help ensure a safe environment for all.

OFFICE SAFETY

An office can seem like a safe place to work. However, many serious accidents and injuries occur on a regular basis in offices everywhere. Slips, trips and falls are one of the most common causes of workplace injuries.

- Keep desk and file drawers closed when not in use.
- Do not open file or desk drawers above or behind someone without warning them.
- Use only step stools and ladders (do not climb on counters, desks or chairs).
- Push chairs up to desk or under counter when not in use.
- Do not carry loads, which obstruct your view, which are too heavy or without a prepared place to set them down.
- Get help to move heavy objects.
- Approach 'blind' areas cautiously.
- Know the location of emergency exits and keep aisles to them clear.

Lone Working is often overlooked for office based staff and the measures listed under "Lone working" Pages 13-14 of this code should also cover the office environment particularly evenings when staff may be working late.

Where staff on site are expected to stay at a desk for extended periods of time then their workplace shall be subjected to a Display Screen Equipment assessment and the workstations shall be set up to reduce the health risks associated with prolonged Visual Display Units (VDU) use.

Assessments will as defined by the Health and Safety (Display Screen Equipment) Regulations 1992 and associated guidance.

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WORKPLACE LIGHTING

Lighting should be sufficient to enable people to work and move about safely. If necessary, local lighting should be provided at individual workstations and at places of particular risk such as crossing points on traffic routes. Lighting and light fittings should not create any hazard. Automatic emergency lighting, powered by an independent source, should be provided where sudden loss of light would create a risk.	
The usage of lightweight portable LED lighting systems is encouraged where works are transitory.	

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MOBILE PHONE AND DATA DEVICE USAGE

Using a hand held mobile phone or data device whilst driving is illegal on the public highway and is not allowed within the confines of any SWW site or SWW contractor's site.
The rules are the same if you're stopped at traffic lights or queuing in traffic.

Mobile phones and data devices on site need to be restricted so that they do not cause a hazard.
They shall **not** be used where individuals are in hazardous areas especially where there are plant or material movements or anywhere near fuelling facilities, gas holding or gas generating assets.

Health and Safety	Management Framework	FORM REFERENCE NO.
		QHS-MF-002

DIRECTORATE PANEL FOR HEALTH AND SAFETY MANAGEMENT SYSTEM

Directorate	Function	Briefing Required
Wholesale Operations	Wholesale Waste Recovery & Environmental Protection	
	Wholesale Dinking Water Services	
	Wholesale Technical Support services	
	Asset Management	
Engineering and Supply Chain	Solution Development and Technical Support	✔
	Property and Support Services	
	$H_5$0/Alliance Partners & Sub-Contractors	✔
	Health, Safety and Security	✔
Domestic Customer and Commercial	Customer Support Programme	
	Service Improvement	
	Information Services	
Business Services and Sustainability		
Finance		
Regulation		

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