Zero incidents
Zero harm
Zero compromise
Keeping you healthy and safe, every day at work.

Health and Safety: engaging with contractors and suppliers

Thames Water

CONTENTS

1 Introduction

1.1 Scope and purpose of this document

Thames Water engages the services of a number of contractors and suppliers to work on our behalf. The work carried out is varied and, as such, is managed in different ways. Everything we do in our business deals with different types of health and safety risk.

The purpose of this document is as follows:

- To set out Thames Water's health and safety expectations and requirements for contractors, suppliers and stakeholders working for or on behalf of, Thames Water.
- To encourage our suppliers to develop a set of standard processes and initiatives in Health and Safety
- To ensure our collective vision of 'zero incidents, zero harm, zero compromise' is understood and being worked towards by both Thames Water and our suppliers

For the purpose of this document, the term 'supplier(s)' includes suppliers, contractors, designers, CDM principal designer and any other organisation that provide goods or services to Thames Water.

The requirements set out here apply to all design, construction, and maintenance and operational works carried out for, or on behalf of Thames Water. To support delivery of our aims, all suppliers must:

- comply with all applicable statutory requirements including planning consents
- comply with the contents of this document
- take account of other standards and publications such as British, European and International Standards, where they apply
- seek out other voluntary codes, guidance and publications from industry bodies that may continuously improve health and safety performance
- participate in Thames Water led Health and Safety campaigns aimed at improving standards
- proactively develop and implement safety initiatives that will improve health and safety performance and be willing to share with other Thames Water suppliers
- ensure that sub-suppliers are provided with access to this document and that they commit to complying with it.

1.2 Thames Water Health and Safety aims

Thames Water is committed to achieving our vision of 'zero Incidents, zero harm, zero compromise' and as such we have developed seven health and safety aims which support us in delivering this vision.

Our aims are:

- **Leadership**- Safety, health and wellbeing are a part of every leader's daily routine.
- **Competence**- Everyone has the skills to do their job in a safe and healthy way.
- **Health and Wellbeing**- Health and wellbeing are essential to making a better place to work
- **Safe workplace**- It's important to ensure we all have a safe and healthy place to work
- **Engagement**- Active engagement with all stakeholders on health and safety
- **Communication**-Everyone has the information to look after their own safety, health and wellbeing
- **Performance and Improvement**-Striving for excellence in health and safety makes good business sense.

Contractors and suppliers need to engage with both Thames Water and each other to ensure we are able to achieve these aims.

1.3 Objectives

Contractors should develop their own objectives which support the delivery of our aims. Thames Water will work collaboratively with contractors to achieve them. Contractors must monitor the delivery of their objectives and be able to evidence progress against the aims.

Suppliers are responsible for adequately resourcing their work including arrangements for self-monitoring, auditing and reporting. Suppliers are also responsible for communicating these requirements to their sub-suppliers, through their supply chain and monitoring compliance.

Thames Water will monitor and audit the health and safety performance of suppliers.

Failure to correctly report and/or to meet the required health and safety performance will result in appropriate action. This will be taken in accordance with the terms of the applicable contracts.

Where suppliers are unable to meet the required standards instructions for cessation of work or termination of the contract shall be determined in accordance with the terms of the applicable contracts.

1.4 Documentation structure

This document forms part of a series of documents and guidance to develop and continuously improve our health and safety standards for contractor activities:

Engaging with contractors and suppliers - a strategic document, which supports our aim of being actively engaged with our contractors on health and safety. It sets out our expectations and some key areas of health and safety management which we must all focus on so that together, we can achieve our vision of 'zero incidents, zero harm, zero compromise'.

Essential and visual standards – subject-specific documents which underpin the above, written with the purpose of driving best practice, whilst detailing the standards that we expect to be achieved on our sites. They provide information and guidance on good health and safety practice and have been written to raise awareness of common issues. Essential standards can assist with inspections and be used to confirm that both contractors and Thames Water are following accepted health and safety practice in relation to a particular health and safety activity.

Available from the health and safety hub http://www.healthandsafetyhub.co.uk/

Site-specific arrangements – documents which outline the standards that we expect to be achieved specific to individual sites.

1.5 Construction (Design and Management) Regulations (CDM)

The CDM Regulations apply to all construction work carried out by Thames Water. Generally, Thames Water is the client and as such will appoint a CDM principal designer and principal contractor.

Both appointments must work with Thames Water to help them undertake the client duties.

The principal contractor must manage the construction phase and ensure the health and safety of both everybody carrying out construction work alongside those who may be affected by the work.

1.6 Notifications

CDM projects – CDM clients must under their duties notify the Health and Safety Executive of projects where the construction work is expected to last longer than 30 working days and have more than 20 workers working simultaneously at any point in the project; or Exceed 500 person days.

Asbestos – Prior to construction an Asbestos Survey is required and where identified an Asbestos Management plan is expected to have been developed. Where Asbestos is found during Construction the person in control of the project must be immediately notified and work ceased. No further work should be carried out until the Asbestos has been safely disposed of.

Injuries, diseases and dangerous occurrences - all incidents which are reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) must be reported to the enforcing authority, as required by the regulations, by the relevant person.

NB: it is the duty of the contractor/supplier to report all dangerous incidents to the enforcing authority.

All incidents must be reported to the main contractor/supplier or where relevant the principal contractor, who will inform Thames Water (see appendix 1). The supplier must inform Thames Water directly if there is no principal contractor in place.

1.7 Approvals, authorisations and licences

Thames Water authorisations and permits – the supplier must ensure that requests for authorisations and permits are made in good time and accompanied by a risk assessment and safe system of work (where required).

Discharge - suppliers must obtain approval from Thames Water prior to depositing any substance into any drain/sewer/process plant. Any unintentional discharges must be notified to Thames Water as soon as possible.

Atmospheric Contamination of Drinking Water
Any material used at a clean water asset which may produce gasses or fumes, regardless of the supply status of the asset must be assessed by the Water Quality Team Prior to use.

Physical contamination of drinking water
All tools, equipment, vehicles and clothing employed upon clean water assets must be hygienic and in compliance with National Water Hygiene standards.

Protection of supply
Any modification that has hydraulic linkage to drinking water must have written authorization from the Water Regulations Team, this includes drainage systems, on line monitors and control systems as well as all direct work.

1.8 Assurance

The health and safety performance of principal designers, designers, contractors and suppliers will be monitored by a combination of regular activities and reporting by the suppliers and by monitoring and auditing by Thames Water and/or external parties where appropriate.

2 Organisation and management requirements

2.1 Health & Safety commitment

In establishing ourselves as a leading organisation, Thames Water is committed to improving performance through avoiding injuries, investigating incidents and putting learning into practice. We are also passionate about achieving excellence in assessing and minimising all health and safety risks. We expect our suppliers to provide the necessary support to meet this objective. Suppliers are expected to respond promptly, when invited, to discuss any reportable event, adverse trends or other evidence of a breach of this document.

A positive health and safety culture is recognised as making a vital contribution to help achieve excellent performance. As such, we seek supplier commitment to appropriate measures such as the encouragement of near miss reporting, climate surveys, behavioural safety management programmes, recognition and other methods to implement and maintain a positive health and safety culture.

We expect suppliers' management personnel to demonstrate exceptional levels of health and safety leadership. This includes:

- **Setting standards** – being accountable for setting high standards of health and safety behaviour within their organisation. As a minimum, we expect managers to lead by example including compliance with the health and safety rules and recommendations.

- **Clarity in roles and responsibilities** – ensuring that their teams and people are aware of their roles and responsibilities.

- **Taking action** – challenging poor health and safety practice and taking personal action when they see a breach of health and safety regulations or standards. They are also expected to ensure that others within their area of business act in a similar way.

- **Awareness** – maintaining an awareness of current health and safety rules, issues and performance. This includes individual project/programme performance as well as the wider company health and safety issues.

- **Contribution** – personally contributing to (not just attending) health and safety events and meetings. This will include health and safety audits and site inspections, incident reviews and health and safety forums. In addition, they are expected to communicate incident learning, innovations and good ideas.

2.2 Client duties

As a client, Thames Water accepts that it has one of the biggest influences and controls over the way a project is run and accepts accountability for the impact that our approach has on the health and safety of those working on, or affected by, our undertaking.

Thames Water is committed to appointing competent and adequately resourced suppliers and to ensuring that appropriate management arrangements are in place to allow construction work to take place safely and without risks to health.

2.3 Communication

Effective communication is key to ensuring that activities are well planned and co-ordinated. All parties must ensure that the arrangements in place for communication are suitable. Relevant information on key issues such as progress, risks and precautions, lessons learned and campaigns must be appropriately cascaded, in particular:

- Suppliers directly engaged by Thames Water must communicate with the relevant Thames Water staff.

- Every supplier who receives a communication directly from Thames Water on health and safety matters must ensure that relevant personnel and sub-suppliers are also in receipt of the information.

- Design teams, of both temporary and permanent design, must communicate and co-operate with the relevant Principal Designer where appointed.

3 Pre-qualification guidance

Suppliers provide an essential contribution to the success of Thames Water in meeting our aims and vision of zero incidents, zero harm, zero compromise. The work carried out by suppliers is regarded as part of Thames Water's conduct of the business and as such, suppliers must be properly selected, managed and monitored.

3.1 Pre-qualification

Potential suppliers must satisfy Thames Water that they have the competencies, systems and resources to safely undertake the work they are allocated. Suppliers that meet the criteria below must therefore prior to undertaking works and or contract award undergo as a minimum an assessment by Thames Waters appointed third party Achilles against the scheme requirements of UVDB Verify.

"All suppliers that conduct work on our sites in a physical capacity, working on our behalf or providing consultancy that requires elements of design to our assets require an Achilles assessment."

4 Design

4.1 Designer role and responsibilities

Designers have a key role to play in the reduction of risks that arise during the life of a project and their decisions can fundamentally affect the health and safety of construction work. Through employing good design practices, designers can make a significant contribution to identifying and eliminating hazards or reducing the risks associated with hazards, where elimination is not possible.

4.2 Existing information

Where known, Thames Water will provide information, relating to site conditions and other pertinent factors, to relevant parties, so that any associated hazards and risks can be addressed. This information may be provided prior to or during the issue of a primary authorisation. For construction work this exchange of information must include the relevant health and safety file.

4.3 Health and Safety in Design

Design teams must conduct themselves with due regard to relevant regulations and guidance such that:

- it is understood that designers can make a significant contribution to risk reduction by carefully considering hazards that would be present during construction, operation and maintenance
- processes are in place to facilitate and encourage co-operation with other members of the project team
- a robust design review process must be in place to identify hazards that may create a risk to personnel. 3D modelling is encouraged as it enables everyone to relate to what is being constructed and its operability.
- any significant risks that may affect personnel involved in construction, operation and maintenance of the structure, are recorded on a risk register and that reasonable efforts are made to eliminate, reduce and/or mitigate such hazards
- any changes to design either prior to construction work commencing on site or during the construction phase must be communicated to the principal designer and be subject to a formal review, which shall consider the H&S impact of such change
- any significant residual risks that may affect personnel involved in the construction of the structure must be communicated to the relevant parties so that they can be taken into account when developing safe systems of work.
- the design team must identify and provide information which is relevant to the compilation of a H&S file

5 Risk management

5.1 General H&S hazards

The supplier's attention is drawn to the need for exercising caution on site against hazards, some of which are common to the construction industry in general and others which are specific to the water industry and, in particular, Thames Water.

In addition to the general hazards identified in appendix 2, site-specific hazards will be identified and made available during the planning phase of work.

The supplier must develop best practice approaches to the hazards and risks identified, and wherever possible provide useful information to Thames Water on good practice and lessons learned to enhance and share the learning experience.

5.2 Supply chain process

The supplier is responsible for ensuring that the H&S competence of sub-suppliers is assessed during their procurement process and only those capable of meeting the standard are appointed. When appointing sub-suppliers, documented checks must be made to ensure that the sub-supplier plans to devote appropriate resource to the work. During this process and after appointment, it is the responsibility of the supplier to ensure that sub-suppliers are aware of and understand the requirements of this document as it applies to them. They must also manage the relationship to achieve compliance and monitor and report performance.

5.3 Construction health and safety plans

Supplier arrangements for complying with Thames Water's health and safety requirements must be included within the principal contractor's construction phase plans and associated safe systems of work. Construction phase plans must be submitted to Thames Water and/or the principal designer in advance of the planned commencement of the work.

Thames Water will:

- evaluate the submitted plans, seeking advice where appropriate and if necessary request amendments to meet the required standard
- undertake periodic monitoring of site activities to gain assurance that the H&S plans are being complied with

5.4 Integrated plans

It is recognised that some supplier management systems may generate plans, which integrate environmental elements with, for example, quality or health and safety. Integrated plans are welcome but will only be acceptable where the relevant parts can be readily identified, for example by its inclusion as a discrete section of a larger document.

5.5 Risk assessment

A suitable and sufficient site-specific risk assessment must be made for all work being carried out and shall identify, as a minimum:

- significant hazards, including those associated with equipment processes, tasks, procedures and the physical aspects of the plant, premises and surrounding environment
- those people at risk from the activity, in particular young workers, lone workers, visitors, neighbours and members of the public
- existing control measures in place and any additional measures required (using the hierarchy of elimination, substitution etc.) and include contingency arrangements as appropriate
- provision to review the risk assessment on a regular basis.
- Communication of the risk assessment to all involved within the task in, order that it is fully understood confirmed by the signatures of attendees
- Maintaining accurate records of risk assessments which are readily retrievable

5.6 Safe systems of work

Suppliers must ensure that arrangements are in place to facilitate the development of suitable safe systems of work. Such arrangements must include:

- preparation of safe systems of work that identify and control the key issues (using the hierarchy of elimination substitution etc.), relating to the work that may affect site personnel, other persons or the environment (see appendix 3)
- communication of the safe system of work and other relevant information to suppliers' personnel, sub-suppliers and others who may require this information for their own safety
- provision to review the safe systems or work where required, such as due to a change in site condition of programme and communication of any such changes to the workforce and others who may be affected by the work.
- For planned works on complex activities a Point of Work Risk assessment is required for all of the activities being carried out

The supplier must ensure that the contents of the safe system of work are written in clear language which is simple to understand and includes sketches where appropriate. Safe systems of work should be briefed at the workplace location wherever possible, to all persons involved in the activity. Briefings must be communicated in a clear and concise manner so as to be understood by all and signatures of attendees obtained.

Suppliers must ensure suitable arrangements are in place to monitor the adequacy of the briefings and undertake regular checks to ensure operatives have understood the briefings.

5.7 Employee consultation

Thames Water is committed to encouraging positive engagement with the workforce on all health and safety matters. We recognise that in addition to meeting health and safety legal obligations, effective consultation and engagement is a fundamental mechanism for achieving health and safety excellence.

Each supplier is encouraged to engage with their site personnel and develop effective mechanisms for involving site personnel in the development and implementation of effective health and safety policies, procedures and safe systems of work. Arrangements for ensuring worker engagement may include:

- personnel understanding that they are allowed to stop work if they feel at risk
- details of the mechanism for raising health and safety concerns
- all personnel addressing others in a civil manner
- timely dissemination of safety alerts
- opportunities for worker involvement when producing safe systems of work and risk assessments
- personnel being encouraged to participate and comment on 'toolbox talks' and other briefings
- taking reported H&S issues seriously and not being negative or critical

5.8 Monitoring and reporting

The supplier must ensure that all work sites and areas are subject to routine inspection by competent persons. Such inspections must be carried out during each work period/shift and address matters such as set up, housekeeping and work practices and suitable records must be kept.

In addition, suppliers must ensure suitable arrangements are in place for effective monitoring of site activities by all levels of management. Arrangements must include ensuring that inspections are carried out at a frequency which is suitable for the nature of the work provide clear instructions/guidance to managers on what to look for and how to deal with actions arising.

In addition to all incidents, and hours worked being reported using Safeguard, principal contractors, designers and other suppliers may be asked to submit regular scorecards on their health and safety performance.

5.9 Audit and assurance

Thames Water may, from time to time request to undertake periodic audits on the supplier's undertaking. Suppliers must co-operate with Thames Water personnel to support such inspections or in response to significant incidents or other reasons.

The supplier must also cooperate with inspections by other properly authorised persons including HSE, EHOs and the EA.

5.10 Emergency arrangements

All offices, projects and establishments must have adequate emergency arrangements which are both known to and readily available to those that may require them. This will usually be in the form of the Fire and Emergency Plan developed by the main or principal contractor. Such plan must include an escalation process (including provision for out of hours response) and be regularly tested to ensure its adequacy.

When developing such arrangements consideration will need to be given to any Thames Water site-specific emergency arrangements that may exist.

6 Health and Safety site management

6.1 Definition of 'Thames Water Site' (TW site)

A TW site is any area or location, above or below ground, containing plant, buildings or infrastructure owned by Thames Water, whether or not it is contained within a permanent or temporary boundary fence.

6.2 Access to site

Access to TW sites is subject to:

- local security standards. The Thames Water Site Manager will specify security standards including access controls, notification procedures and perimeter security requirements
- being in possession of a valid Thames Water Safety Passport where required.

6.3 Primary Authorisations

Most work whether on a Thames Water site or public place will be undertaken under one of the following primary authorisations:

- TOCOP (Transfer of Controller of Premises)
- TWOSA (Thames Water Operational Safety Authorisation)

These forms are available in pads and must not be recreated and transmitted electronically.

The purpose of these primary authorisations is to provide a two-way transfer of key information relating to existing hazards and the work being carried out.

They are not intended for use when travelling across the premises to the place of work – although access arrangements must be agreed with the site manager. They are also not intended for suppliers that are meeting with Thames Water Site Managers or their representative to discuss/agree prospective works, as long as they are accompanied by someone with sufficient knowledge of the site and its hazards.

6.3.1 Transfer of Control of Premises (TOCOP)

The TOCOP form confirms that a site/area has been passed over to a supplier. This form is not a permit to work, nor does it in anyway prescribe safety controls. It does, however, confirm that the site/area is now the responsibility of the main or principal contractor. The form must be signed by both the Thames Water Site Manager and the supplier, in order to confirm both transfer and return of control of premises. Requests for a TOCOP must be accompanied by a site plan indicating the area to be transferred. A copy of the completed TOCOP must be clearly displayed on the site along with signs informing people that the area is subject to a TOCOP.

6.3.2 Thames Water Operational Safety Authorisation (TWOSA)

The TWOSA enables a formal exchange of essential health & safety information, where suppliers/visiting workers are required to work alongside Thames Water. It is not a permit-to-work (secondary permit/authorisation), which may still be required in certain high risk or complex circumstances. A TWOSA will be issued where TW retains control of the premises. Requests for a TWOSA must be accompanied by a written safe system of work. A copy of the completed TWOSA must be clearly displayed at the site.

6.4 Work control documents – secondary authorisation

Where the supplier is undertaking work on Thames Water premises or critical areas of the network e.g., rising mains or trunk mains, access to defined areas of high risk or plant shall be controlled through the issue of a secondary authorisation. These documents (which include a permit to work) strictly define the limitations on working and will, when necessary, identify a safe system of working e.g., plant release certificate, general permits, diversion notice, hot works, authorisation for the use of hired mobile cranes.

6.5 Site rules

The supplier must liaise with the Thames Water Site Manager, with regards any site rules or site-specific inductions that are required. This may include local restrictions on working hours or delivery times. The supplier must ensure that all personnel are aware of the basic requirements. These include the following:

- all employees are empowered to challenge unsafe working practices (Zero compromise cards)
- all employees must sign in and out at start and end of each period of work
- obey site rules and speed limits
- no children, pets or unauthorised passengers allowed on site (even if kept in vehicle)
- do not drop litter or leave rubbish on the site
- respect for other people including no use of foul, abusive or racist language, no abusive or violent behaviour, harassment or bullying
- Inappropriate behaviour will not be tolerated
- do not use the site or public highway as a toilet
- no personnel shall consume or be under the influence of alcohol or drugs. Prescribed medication is permissible but must be notified to a manager and must not affect a person's ability to work safely.
- mobile phones must not be used when driving or operating any plant or vehicles or where specifically prohibited
- do not leave keys in unattended vehicles
- smoking, drinking or eating is only permitted in designated areas provided with hand cleaning facilities.

6.6 Essential safety information

The main/principal contractor and the employing supplier must cooperate to provide essential health and safety information to all personnel, working under their control, before they commence work. During the briefing the supplier must ensure that all personnel have been made aware of the site rules prescribed by Thames Water and shall include the following training topics as a minimum;

- safe practice, relevant to the work content (including explanations of agreed method statements and safe systems of work)
- importance of challenging unsafe working practices (Zero compromise cards)

- identification of specific hazardous areas on site (e.g. overhead cables, railways etc.)
- explanation of policy on: personal protective equipment (including minimum dress standard), alcohol, drug abuse, inappropriate behaviour etc.
- details of first aid provisions
- provisions for welfare (canteens, toilets, drying rooms etc.)
- fire prevention provisions and emergency procedures
- incident and near miss reporting procedure
- procedures for control of materials and debris
- policy regarding operation of specific plant and equipment
- the use of scaffolding
- site mobile phone policy
- site smoking policy
- importance of notifying site management of any medical conditions
- other relevant requirements of the Health and Safety Plan (for construction work).

The main/principal contractor or employing supplier must maintain records to show that the briefing has taken place.

On some sites it may also be necessary for the personnel to attend a specific site briefing delivered by the Thames Water Site Management prior to work commencing.

6.7 Visitors/visiting workers

Visitors or personnel who will be working on site for a period of less than one day must as a minimum be:

- issued with information which identifies the site safety rules and site-specific hazards (for construction works as contained in the Construction Phase Health and Safety Plan)
- provided with the appropriate PPE, by the hosting supplier and advised in its correct use
- accompanied at all times by a competent person, who is formally allocated responsibility for the visitor (including in the event of an emergency).

Where a supplier wishes to host a group tour, risk assessments must be undertaken and on Thames Water sites must seek approval from the Thames Water Site Manager. If Thames Water wishes to arrange a similar visit to a supplier's site, then cooperation will be sought on the same basis.

Suppliers must ensure that planned interventions or site visits by key stakeholders e.g. Health and Safety Executive are notified to Thames Water as soon as possible. Suppliers must ensure that unplanned visits and interventions are notified to Thames Water as soon as practicable but, as a minimum, by the end of the working day. Suppliers must provide details of the visit and any significant findings.

6.8 Security

All employers and employees have a general duty under the Health and Safety at Work Act to take reasonable measures to minimise risks to the public. When working within a Thames Water operational works, the supplier must take measures to ensure the safety of the operational staff not involved with the construction work in a similar manner to the measures that would be taken to ensure public safety e.g., barriers and signs.

Suppliers must undertake a risk assessment considering the security of property within the site against acts of vandalism and theft by persons having unauthorised entry to the site, and also to the safety of the public who may be affected by the work, with the following as a minimum;

- unattended mobile plant and equipment shall be immobilised. Plant keys must be locked away when the site is unattended
- small plant, bottled gases and chemicals must be securely stored when not required for use in the works
- all reasonable precautions must be taken to secure the site against unauthorised entry.

6.9 Deliveries

Drivers delivering goods and materials must remain with their vehicles, except to visit welfare facilities or offices to deal with paperwork and when outside of the vehicle must wear the appropriate PPE for the site.

Drivers who work away from the vehicle or who operate their vehicles in construction operational areas must hold a Thames Water Safety Passport card and be provided with relevant information as identified by the essential safety information matrix, or be under appropriate supervision by the relevant supplier at all times.

6.10 Caravans/sleeping accommodation

Sleeping accommodation is not generally permitted on Thames Water sites. In exceptional circumstances, written permission from the Thames Water Site Manager is required prior to set up.

Every caravan/sleeping accommodation cabin must;

- have a clear space of at least 6m from the nearest caravan or 10m from any building under construction or refurbishment, permanent building or structure. Alternatively a suitably designed firewall may be used (may be designed integral to the structure)
- have electrical circuits tested
- be provided with a smoke alarm and carbon monoxide alarm (tested at least weekly and result recorded)
- contain an appropriate fire extinguisher (included in any inspection regime)
- be included in the site fire risk assessment.

Unused LPG cylinders must be securely stored in the open as far away as practicable from the caravans. Storage must be a minimum of 6m away from any occupied structure and segregated from other potentially flammable consumable or waste storage areas.

6.11 Competence/Specific training requirements

All personnel must be competent to carry out their particular duties and tasks according to appropriate regulatory and industry standards e.g., Health and Safety Executive recommendations.

It is the responsibility of the supplier to ensure both task specific competence and also core health and safety competence throughout their organisation and sub-suppliers at all levels and to ensure compliance with Thames Water specific training requirements. This includes making suitable arrangements to ensure that managers and supervisory staff have core health and safety competence, understand what is expected of them and are able to effectively implement the requirements of the safety management system.

Suppliers are responsible for maintaining and providing upon request, adequate records to allow competence to be readily demonstrated.

The supplier must arrange regular toolbox talks to be attended by all staff and operatives, throughout the duration of the work. Such talks in a good environment must cover topics relevant to the work being undertaken and be of sufficient duration to ensure adequate discussion and a full understanding of the topic. Attendance and topics covered must be recorded and kept available for inspection.

All Contractors/Suppliers working on site, who are involved in construction work (as defined in the Construction (Design and Management) Regulations) including designers, and Contractors/Suppliers working onsite to maintain operations must be in possession of a Thames Water Safety Passport. In order to obtain a ‘passport’ it is necessary to demonstrate a basic level of health and safety awareness training. Personnel who are not in possession of the required training must remain under the direct control of an experienced supervisor.

Any enquiries on the Thames Water Safety Passport Scheme should be directed by email to TWpassport@thameswater.co.uk.

All operatives and supervisors engaged in operations and activities on or near services must have attended a service avoidance awareness course, prior to commencing excavation (supplemental to ‘New Roads and Streetworks Act’ training).

All persons working intrusively on assets involved in the treatment (post primary barrier) storage, supply of drinking water must hold a valid EUSR National Water Hygiene Card.

6.12 Supervision

The supplier must ensure that work is adequately resourced and supervised at all times by competent persons. The arrangements shall specifically address the supervision of personnel who are new to site, young persons, pregnant women and other personnel at risk e.g., lone workers. The arrangements must also include a plan for dealing with foreseeable emergencies, adverse events and include covering for sickness and leave.

6.13 Personal Protective Equipment (PPE)

PPE is the last resort and reference must be made to the hierarchy of control when establishing safe systems of work. PPE required must be defined and suppliers must provide instruction, ensure it is effectively used, provide storage facilities and confirm arrangements for replacement. Where respiratory protection is defined by risk assessment, its use must be supported with face fit testing.

6.14 Occupational Health

Suppliers must ensure that the necessary arrangements are in place for managing occupational health. These arrangements should include pre-employment screening, sickness absence management and should reinforce the need to ensure that health issues are considered when compiling risk assessments.

Health problems should be managed, wherever possible by eliminating and reducing risks through good design. Any hazards and risks which remain following reasonable attempt to eliminate or reduce must be managed on site.

In addition to managing the risk to health arising from their activities, suppliers must manage other health related issues such as:

- the health assessment of those undertaking safety critical roles such as crane operators
- the management of people who have pre-existing health conditions such as diabetes, epilepsy etc.
- the promotion of general health and wellbeing of their workforce.

Where the need is identified through legal requirements or workers being subject to significant exposure of substances e.g., lead, asbestos or chemicals, suppliers must ensure that health surveillance is carried out. Health surveillance is about systematic, regular checks on workers to identify early signs of ill health, and then acting on the results. It is needed to protect workers who are at increased risk but is not a substitute for preventing and controlling exposure rather it is a way of seeking to protect employees health.

As well as undertaking health surveillance, it is essential that suppliers also act on the results e.g., preventing further exposure to the substance, in the case of dermatitis.

6.15 Welfare

The supplier must arrange suitable and sufficient welfare facilities according to the work in hand, the location of which is to be agreed with Thames Water. In some cases it may be possible to utilise Thames Water facilities although this must be agreed with the Site Manager prior to work commencing.

Suitable welfare facilities must be provided before the main construction work commences and meet the needs of men, women and anyone with a disability. Where the work being carried out represents a significant risk to health, the supplier must undertake a risk assessment to identify additional welfare arrangements as appropriate.

6.16 Alcohol and drugs

The use of non-prescribed drugs and the consumption of alcohol are not permitted on any Thames Water site. Persons believed to be under the influence of either, will be refused entry to site or be directed to leave site. All supplier personnel who are performing safety critical roles and are under any form of prescription medication must notify their employer or principal contractor.

6.17 Smoking

Smoking on Thames Water sites is prohibited, except in specific designated locations, which excludes all enclosed work areas including offices and welfare facilities. The supplier is responsible for designating smoking areas which must be managed to minimise any fire risk, to avoid creating discomfort to others and as a minimum should comply with any legal requirements to protect people from passive smoking.

6.18 Audio equipment and mobile phones

Personal radios and portable audio equipment are prohibited from Thames Water work sites. The use of mobile phones should be confined to offices and welfare facilities wherever possible and in general, should not be used out on site except for essential business purposes, taking care that their use does not create a risk to the user or others. The use of mobile phones is not permitted when operating plant or equipment or whilst walking or travelling across the site.

6.19 Non-English speaking personnel

The supplier must ensure that all personnel fully understand the site H&S requirements as expressed orally and in written signage, including emergency arrangements. The language needs of non-English speaking personnel must be addressed through training and during induction.

Non-English speaking personnel must be trained to the same standard as English speaking personnel.

Suppliers must ensure that all staff are properly supervised and particular attention is given to personnel who may have difficulties in understanding verbal or written communications.

Those who are responsible for managing such personnel on site must ensure that arrangements are in place to communicate information, in both written and oral English, relevant to the tasks being carried out. Personnel who are not competent in the English language are permitted provided that the supplier can demonstrate that:

- appropriate arrangements are in place to ensure that instructions are communicated effectively and understood by all team members
- other team members are able to give oral instructions and warnings to non-English speaking personnel
- all personnel have received the same standard of H&S training.

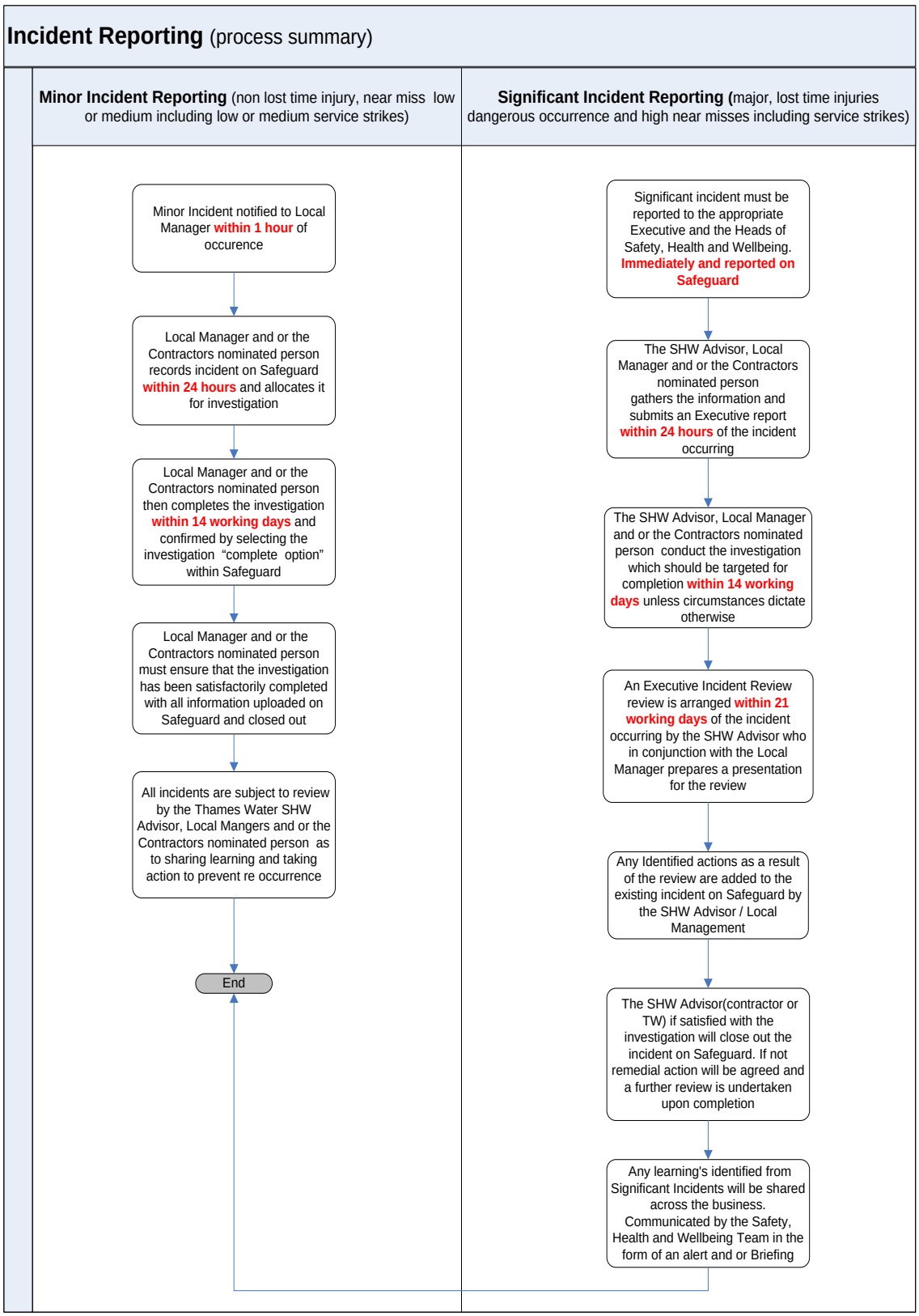
6.20 Inappropriate behaviour

Contractors/Suppliers must ensure that any employee displaying inappropriate behaviour which compromises safety are subject to appropriate action in line with their policy and procedures

6.21 Monitoring, auditing and investigations

Thames Water encourages all suppliers to carry out their own reviews, auditing and any such investigations necessary to provide assurance that the information generated and supplied is valid and verifiable. Suppliers and their personnel must also cooperate fully with any monitoring, audits or specific investigations carried out by suppliers above them in the supply chain, by Thames Water or its representatives.

Appendix 1 - Incident reporting



The level of investigation should be in proportion to the severity of the incident. Where applicable, relevant documents must be attached to the investigation, for example,

witness statements, notification to the HSE, or photographs. As a minimum, the investigation must identify:

- key details of the incident (circumstances, personnel involved, environment etc.)
- immediate action taken
- analysis of assessment of risk and application of safe system of work
- immediate and root cause
- constructive recommendations
- achievable action plan to prevent recurrence (including identification of responsible person and date for delivery).

Supporting documents must also be attached to the investigation. These will vary depending on the severity of the incident but may include a copy of notification to the enforcing authority, witness statements, maintenance records of relevant tools and plant, relevant inspection records of the site at which the incident occurred, relevant training records, systems of work in place at the time of the incident and toolbox talks which have been provided.

Where opportunities exist to share learning which can be of benefit to others, suppliers must prepare and circulate a safety alert. Information to be included in a safety alert includes:

- date of alert issue
- author of the alert
- clear explanation of the danger/incident
- detail of the action required and by whom
- provision for confirmation that action has been taken

Appendix 2 – General hazards

1. Potential hazards found on all Thames Water Sites

1.1 Buried services

Buried electricity cables of all voltage ratings, gas, air and water pipes, chemical lines, oil pipes and fibre optic cables may be encountered on any operational site, private land or highway and record drawings are often incomplete or contain errors. Electric cables do not necessarily lie in straight lines - they snake about within the trench in which they were laid and will not necessarily be laid at standard depths or have warning tape/slabs above them. Hazards from electric cables include burns, electrocution and indirect consequences from the stoppage of process plant. Gas, air, steam, fuel, chemical or water services may be under high pressure and water associated with heated sludge treatment processes may be very hot such that hazards include explosion, flooding, scalding and indirect consequences from the stoppage of operational plant.

1.2 Overhead electricity cables

These are not insulated and may be encountered at all voltage ratings. On operational sites, the clearance may be lower than in highways or public areas. Hazards are similar to those for buried cables but with the additional risk that arcing may occur between the cable and any metal object or water spray.

1.3 Moving machinery

Any operational plant may contain moving machinery, much of which is likely to be controlled automatically and liable to starting from a stationary position without warning. Electrical plant, usually associated with such machinery, will provide hazards similar to those of electricity cables.

1.4 Noise

Machinery, such as engines, turbines, generators, pumps or compressors operating inside buildings may produce very loud noise. High speed machinery may produce high frequency noise.

1.5 Confined spaces

"Confined space" means any place, including any chamber, tank, vat, silo, pit, excavation, tunnel, manhole, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk of:

i) Serious injury to any person at work arising from a fire or explosion

ii) without prejudice to paragraph (i)
- the loss of consciousness of any person at work arising from an increase in body temperature;
- the loss of consciousness or asphyxiation of any person at work arising from gas, fume, vapour or the lack of oxygen

iii) the drowning of any person at work arising from an increase in the level of liquid

iv) the asphyxiation of any person at work arising from a free flowing solid or the inability to reach a respirable environment due to entrapment by a free flowing solid.

Confined spaces are extremely hazardous places, focus should be on the avoidance of entry and must not be entered without a robust safe system of work that includes competent personnel, atmosphere monitoring and rescue arrangements.

1.6 Chemicals
Diesel is stored for use in emergency electricity generators and vehicles. Petrol and liquid petroleum gases are sometimes stored for use in vehicles. Small quantities of chemical reagents are stored for use in laboratories. Escaped liquid gases and laboratory fumes are vented to atmosphere, giving rise to the hazards noted in their vicinity.

Chemicals are stored and used in many processes. Many are toxic, corrosive, harmful or irritant. Gases used in treatment processes (except ozone) are usually stored in liquid form. Lime (irritant), ferric and aluminium sulphates (irritants), hydrofluoric acid and odour suppressants (toxic and corrosive), hydrogen peroxide (oxidising and corrosive) and various polyelectrolytes (which cause surfaces to become slippery if spilt), some of which are flammable, are used in water, sewage and sludge treatment processes. Weed killers are used to reduce maintenance of paved areas. Mercury (toxic) is used as a seal or for electrical contact in some moving process machinery.
Sodium hypochlorite (corrosive, oxidising) is used in the disinfection of water, water mains and plant. In use, it can liberate chlorine gas if mixed with acid or alkali (noted above). Sodium Bisulphate will give off sodium oxide when poured from its container or spilt.

1.7 Deep water
In addition to rivers, many works contain large areas of deep and/or fast flowing water which present the risk of drowning.

1.8 Mechanical and electrical plant/equipment
All such plant/equipment may be dangerous if operated incorrectly. The supplier must not work on Thames Water mechanical plant or electrical equipment unless authorised. Some activities may require a written permit to work.

1.9 Moving vehicles
Any road on an operational works may carry vehicles which are relatively heavy for the class of road. Such vehicles may carry any of the chemicals mentioned above, or sewage sludge.

1.10 Asbestos
Asbestos products, including insulation material, may be found in existing Thames Water structures.

1.11 Lead
Lead may be present in old pipes, roofs, paint, electrical cables, etc.

1.12 Contaminated land
All areas within Thames Water process sites must be treated as ‘brown field sites’ and certain areas may fall within the definition of ‘contaminated land’

1.13 Poisonous plants and dangerous animals
Care should be taken when encountering poisonous plants or potentially dangerous animals on site. These have the potential to cause serious injuries, for example, the sap of giant hogweed can cause severe blistering when exposed to skin and sunlight, and grass snakes emit a very unpleasant deterrent if cornered, similar to skunks. Any unknown plant or animal should be left alone, and the Thames Water Site Manager should be informed so that the necessary steps can be taken to safely manage the plant/animal or remove it from site according to our procedures.

2. Potential hazards of sewerage and sewage treatment sites

2.1 Sewage

Foul effluent from domestic and industrial discharges may be present in sewers, drains (including those on water treatment sites), tanks, pumping stations, channels, chambers on sewage treatment works and within the network. Its effects are potentially harmful with the possibility of disease (including leptospirosis, otherwise known as Weil's disease) or infection if it enters the body by ingestion, inhalation or through a wound (however minor). Sewage sludge is a product of the sewage treatment process and is extensively present on sewage treatment works in open and sealed tanks. It generally offers harmful effects similar to those of sewage but with greater potential to cause disease due to higher concentrations. Explosions or fire hazards are caused by the gases which are generated by sewage sludge.

Protection against the harmful effects of sewage and sewage sludge is by:

- wearing protective clothing, especially gloves
- washing hands thoroughly before eating or smoking, after using the toilet and after work
- obtaining first aid treatment for all injuries.

2.2 Explosive gases and oxidising substances

Explosive and flammable gases include methane (generated by sludge treatment processes or encountered during excavation), propane and other hydrocarbons and solvents (spilled or discharged to sewers). Oxygen is not itself explosive or flammable, but in excessive concentration can cause other substances (especially hydrocarbons) to ignite or explode unexpectedly (oxygen is used in laboratories, workshops and some treatment processes). Compressed air vessels may burst explosively.

There is a risk of flammable gas and explosive atmospheres in the vicinity of biogas installations (digesters, gas holders, flares, engine houses, etc) and there is a low risk of an explosive atmosphere in sewage pumping stations and sewage installations inlet and primary treatment processes.

The oxidising substances hydrogen peroxide and potassium permanganate are also sometimes used during sewage treatment.

2.3 Toxic gases

Include hydrogen sulphide (generated by septic sewage or sludge), carbon monoxide (generated by combustion engines) and other gases evolved from accidental or illegal discharge into the sewerage system.

2.4 Aeration lanes

Buoyancy is reduced by the super aerated water in this process; life jackets of minimum 275N buoyancy complying with BSEN 399 will be required.

2.5 Absence of oxygen

Caused either because the oxygen has been used up chemically or biologically (e.g. excavation in chalk) or has been displaced by another, heavier gas (e.g. carbon dioxide).

2.6 Rising mains
Whilst working on rising mains it may be possible for work area to be affected by a back flow or flooding from the delivery end of the rising main.

3 Potential hazards on potable water and water treatment sites

3.1 Chemicals
Water is disinfected by injecting measured quantities of toxic gases, which are stored under pressure in cylinders and drums. The chemicals are chlorine (yellow container), sulphur dioxide (green with yellow band container) and ammonia (black, yellow and red container). All are dangerous gases. Other hazardous chemicals such as acids, alkalis and liquid oxygen are also frequently present in bulk tanks on Thames Water sites.

Conventional warning signs will usually indicate the presence of such containers, which must not be tampered with. Work in the vicinity of such storage facilities needs clear authorisation and then only with the use of a safe system of work.

3.2 Sludges
Sludge from water treatment processes may contain strong concentrations of the chemicals noted above (section 3.1)

3.3 Immersion in water or other liquids
All tanks, chambers, flumes, channels, filters and reservoirs may contain water or other liquids, carrying a risk of drowning whether deep or shallow. Escape from deep liquids is more difficult. Additionally, when storage reservoirs or other covered structures are filled with liquid, the space above the liquid may become a 'confined' space with potential to cause asphyxiation due to lack of oxygen or the presence of toxic gases. Abstraction boreholes usually contain very deep water.

There is a risk of illness by contact with certain species of algal toxins (for example, blue green algae) at raw water storage reservoirs.

3.4 Granular Activated Carbon (GAC)
The dust from GAC washing plants may contain peroxide and ozone (both irritants).

3.5 Boreholes
Carbon dioxide and methane gas may accumulate in boreholes; the action of water rising in the borehole can release the gasses out of the top of the borehole.

3.6 Explosive gases and oxidising substances
Where ammonia gas is used, this gives rise to potential explosive atmosphere. The oxidising substances liquid oxygen is used on some water treatment to make ozone which is toxic and oxidizing.

3.7 Loss or contamination of supply
Contamination of drinking water can lead to a significant risk to the health and wellbeing of our customers. This can be from improper use of materials and chemicals or the introduction of harmful pathogens and biological agents.

Appendix 3 – Safe systems of work

The safe system of work must describe the sequence and means of construction and shall include, as a minimum;

- a brief description of the work to be undertaken; including a sketch if necessary
- key activity and/or task specific risk assessments
- details of tools, equipment, plant, materials to be used
- details of environment (physical) factors
- details of permits to work or authorisations required
- specialist safety equipment required
- personal protective equipment required
- details of contacts, site management etc., contingency arrangements
- emergency arrangements
- sequence of main job tasks (identifying the method and associated safety controls)
- details of those persons involved in the work and confirmation that relevant information/instruction (including safety controls) have been satisfactorily communicated
- name of person responsible for implementation and monitoring of safe system of work
- provision to review the safe system of work as appropriate

Please note that all changes to this version are highlighted by a change bar in the left hand margin.